Service Manual

Pioneer

ORDER NO.
RRV2342

STEREO CD RECEIVER SYSTEM

X-MT2000

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	X-MT2000		
KUCXCN	○	AC120V	
MYXCN	○	AC220-230V	
NVXCN	○	AC230V	
DBDXCN	○	AC110-127V/220-230/240V	
DLXCN/NC	○	AC110-127V/220-230/240V	

● X-MT2000 is combination of the following components.

Component		Model				Service manual	Remarks
STEREO CD RECEIVER SYSTEM		X-MT2000				RRV2342	This manual.
		KUCXCN	MYXCN,NVXCN	DBDXCN	DLXCN/NC		
	STEREO CD RECEIVER	XR-MT3	XR-MT3	XR-MT3	XR-MT3	RRV2343	
	SPEAKER SYSTEM	S-MT3W	S-MT3H	S-MT3	S-MT3-N	RRV2344	

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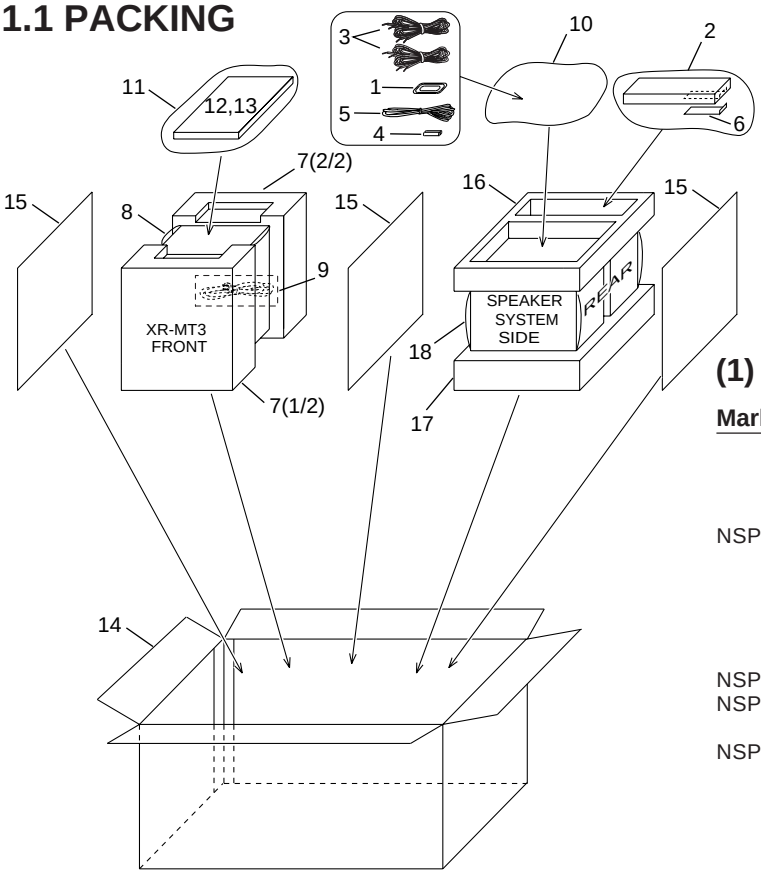
T – ZZK JULY 2000 Printed in Japan

1. EXPLODED VIEWS AND PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *Screws adjacent to ▼ mark on product are used for disassembly.*

1.1 PACKING



(1) PACKING PARTS LIST

Mark	No.	Description	Part No.
	1	AM loop antenna	ANT-PMT1E-AL
	2	Remote control unit	See Contrast table (2)
	3	Speaker Codes	122002020604
NSP	4	'AAA' size R03 batteries	130115004000
	5	FM wire antenna	See Contrast table (2)
	6	Remote Batt. Door	500RC4603050
	7	Polyform Unit	800PMT190000
	8	Polytheneform Sheet	801999000004
NSP	9	PE Polybag (AC Cord)	See Contrast table (2)
NSP	10	PE Polybag (Antenna)	805070100000
NSP	11	PE Polybag (I Book)	See Contrast table (2)
	12	Warranty Card	See Contrast table (2)
	13	Operating Instructions	See Contrast table (2)
	14	Carton	See Contrast table (2)
	15	Corrugate Card	815001407262
	16	Top Protector	See Contrast table (2)
	17	Bottom Protector	See Contrast table (2)
	18	Poly Bag	See Contrast table (2)

(2) CONTRAST TABLE

X-MT2000/KUCXCN and MYXCN, NVXCN, DBDXCN, DLXCN/NC are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.					Remarks
			X-MT2000 /KUCXCN	X-MT2000 /MYXCN	X-MT2000 /NVXCN	X-MT2000 DBDXCN	X-MT2000 DLXCN/NC	
	2	Remote control unit	AXD7261	AXD7292	AXD7292	AXD7292	AXD7292	
	5	FM wire antenna	132030001001	054010A50090	054010A50090	132030001001	132030001001	
NSP	9	PE Polybag (ACCord)	805032115000	805032115000	805040130000	805032115000	805032115000	
NSP	11	PE Polybag (I Book)	805085140000	805085120000	805085140000	805085120000	805085120000	
	12	Warranty Card	810PMT195010	810PMT195020	810PMT195020	Not used	Not used	
	13	Operating Instructions (English/French)	811PMT191010	Not used	Not used	Not used	Not used	
	13	Operating Instructions (English/French/German/Italian)	Not used	811PMT191021	811PMT191021	Not used	Not used	
	13	Operating Instructions (Spanish/ Portuguese/Dutch/Swedish)	Not used	811PMT191031	Not used	Not used	Not used	
	13	Operating Instructions (English/Spanish/Chinese)	Not used	Not used	Not used	811PMT191041	Not used	
	13	Operating Instructions (English/Chinese)	Not used	Not used	Not used	Not used	811PMT191051	
	14	Carton	813PMT193010	813PMT193030	813PMT193020	813PMT193040	813PMT193050	
	16	Top Protector	SHA2245	SHA2243	SHA2243	SHA2243	SHA2243	
	17	Bottom Protector	SHA2246	SHA2244	SHA2244	SHA2244	SHA2244	
	18	Poly Bag	SHC1762	SHL1257	SHL1257	SHL1257	SHL1257	

Service Manual

ORDER NO.
RRV2343

STEREO CD RECEIVER

XR-MT3

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	The voltage can be converted by the following method.
	XR-MT3		
KUCXCN	○	AC120V	———
MYXCN	○	AC220-230V	———
NVXCN	○	AC230V	———
DBDXCN	○	AC110-127V/220-230V/240V	With the voltage selector
DLXCN/NC	○	AC110-127V/220-230V/240V	With the voltage selector

● System Component Table

Component		Model				Service manual	Remarks
STEREO CD RECEIVER SYSTEM		X-MT2000				RRV2342	
		KUCXCN	MYXCN,NVXCN	DBDXCN	DLXCN/NC		
	STEREO CD RECEIVER	XR-MT3	XR-MT3	XR-MT3	XR-MT3	RRV2343	This manual.
	SPEAKER SYSTEM	S-MT3W	S-MT3H	S-MT3	S-MT3-N	RRV2344	

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

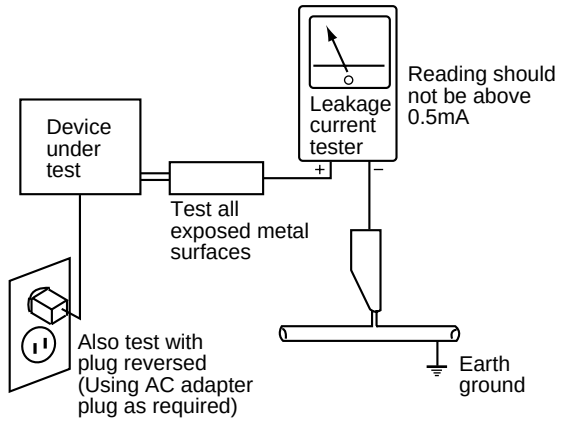
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
+
–
Device under test
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

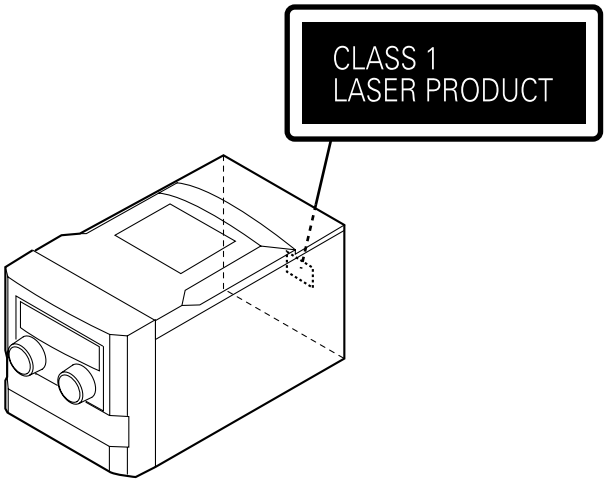
IMPORTANT

THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS

MAXIMUM OUTPUT POWER: 5 mW
WAVELENGTH: 760 - 800 nm

LABEL CHECK (For MYXCN and NVXCN Types)



Additional Laser Caution

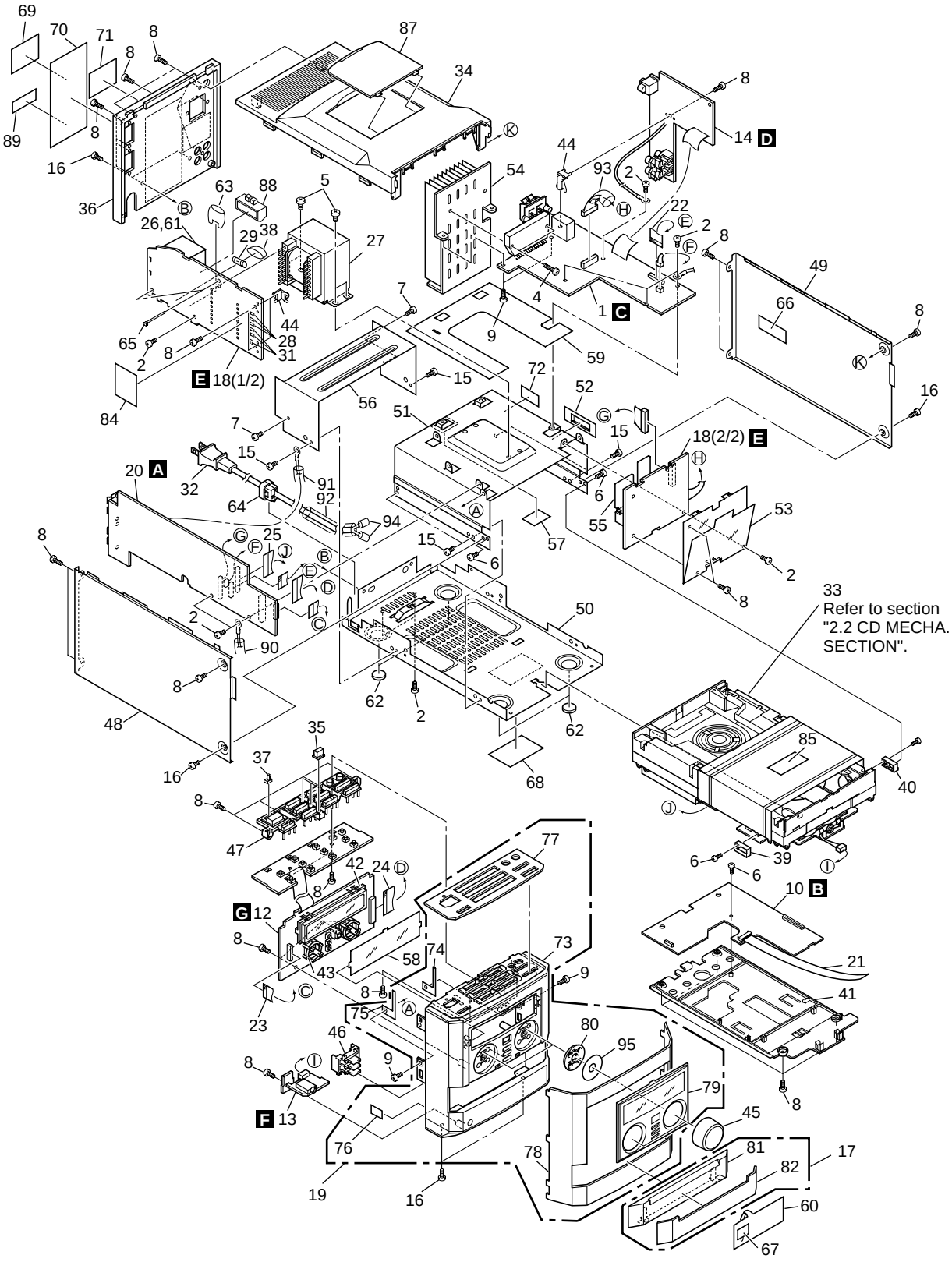
1. Laser Interlock Mechanism
   The position of the switch for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch is pressed physically.
   Thus, the interlock will no longer function if the switch is released physically and deliberatery.
   Laser diode oscillation will continue, if pin 46 of TA2065F (IC2) on the CD SERVO PCB ASSY is connected to GND, or else the terminals of Q1 are shorted to each other (fault condition).

2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

2. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on the product are used for disassembly.*

2.1 EXTERIOR SECTION



(1) EXTERIOR SECTION PARTS LIST

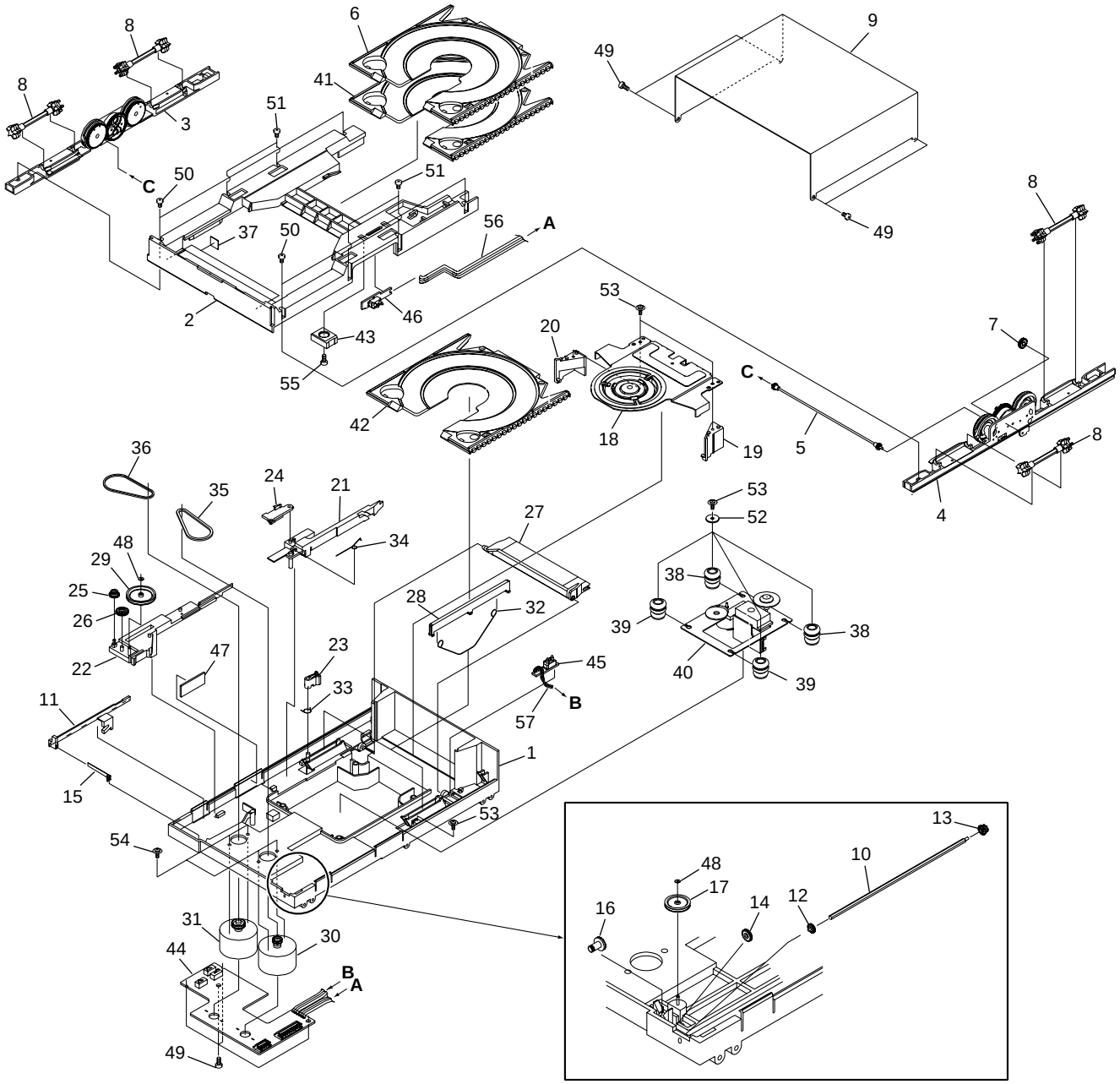
Mark	No.	Description	Part No.
	1	AMP PCB Assy	AUD-PMT1E
	2	Screw	BBZ30P060FMC
	3	Screw	KBZ30P060FNI
	4	Screw	BBZ30P140FMC
	5	Screw	BBZ40P060FMC
	6	Screw	BPZ20P050FMC
	7	Screw	BPZ26P080FMC
	8	Screw	BPZ30P100FNI
	9	Screw	CBZ30P060FMC
	10	CD SERVO PCB Assy	CD--PMT1E
	11	• • • • • •	
	12	DISPLAY PCB Assy	See Contrast table(2)
NSP	13	HP JACK PCB Assy	• • • • • •
	14	TERMINAL/JACK PCB Assy	JK--PMT1E
	15	Screw	KBZ30P040FMC
	16	Screw	KBZ30P060FNI
	17	CD DOOR Assy MT	SUBPMT1DR01
	18	POWER PCB Assy	See Contrast table(2)
	19	S-Assy PMT1 FP01	See Contrast table(2)
	19	S-Assy PMT1 FP02	See Contrast table(2)
	20	TUNER PCB Assy	See Contrast table(2)
	21	FFC Cable 16Pin	040160100101
	22	FFC Cable 16Pin	040160260100
	23	FFC Cable 17Pin	040170100100
	24	FFC Cable 24Pin	040240200130
	25	FFC Cable 30Pin	040300400100
⚠	26	Power TF EI35 120V	See Contrast table(2)
⚠	26	Power TF EI35 230V	See Contrast table(2)
⚠	26	Power TF EI35 11-2	See Contrast table(2)
⚠	27	Power TF EI66 120V	See Contrast table(2)
⚠	27	Power TF EI66 230V	See Contrast table(2)
⚠	27	Power TF EI66 11-2	See Contrast table(2)
⚠	28	Micro Fuse 251001	124010010002
⚠	29	Fuse #23901.6 (1.6A)	See Contrast table(2)
⚠	29	Fuse #21801.6 (1.6A)	See Contrast table(2)
⚠	30	Micro Fuse 251002	124020010002
⚠	31	Micro Fuse #25103.5	124035010000
⚠	32	PLA-ULP-6'06"-SP2NMG	See Contrast table(2)
⚠	32	PLA-VDE-6'06"-VDG	See Contrast table(2)
⚠	32	PLA-MOU-6'06"-BS6	See Contrast table(2)
⚠	32	PLA-JIS-6'06"-JIS	See Contrast table(2)
⚠	33	CD MECHA,CMCJ	153000117000
	34	Top Panel	See Contrast table(2)
	35	Direct Access Knob Lens	500PMT111000
	36	Back Cover	See Contrast table(2)
	37	Power Standby Lens	500PMT129000
	38	Fuse Insulation Cap	500623200000
	39	CD Base Adaptor R	503PMT125000
	40	CD Base Adaptor L	503PMT126000
	41	Servo PCB Bracket	505PMT114000
	42	FL Bracket	505PMT134000
	43	LED Bracket	505PMT135000
	44	PCB Mounting Bracket	505PMT136000
	45	Volume Knob	510PMT103001
	46	Clock Control Knob Set	510PMT108001
	47	Direct Access Knob Set	510PMT109010
	48	Side Panel-L	600PMT117001
	49	Side Panel-R	600PMT118001
NSP	50	Bottom Tray	600PMT121000
	51	Transformer Bracket	605PMT122000
	52	FCC Cable HLD	605PMT142000
	53	Cable Holder	605PMT143000
	54	Power Heat Sink	613PMT124000
	55	Heat Sink	613PMT131000
	56	CD Shield Plate	650PMT139000
	57	CD Insulation Sheet	650PMT144000
	58	Display Filter Plate	See Contrast table(2)
	59	PC Sheet	650PMT149000
	60	Transport Stopper PL	650PMT197010
	61	Shielding Plate	650277225000
	62	Rubber Foot	700PMT130000
	63	Capacitor Boot	700PMT150000
	64	Bushing	See Contrast table(2)
	65	Cable/Plastic Tie	727000100000
	66	65 Label	See Contrast table(2)
NSP	67	Trans. Stopper Label	809PMT194021
	68	FCC Label	See Contrast table(2)
NSP	69	Serial No Barcode Label	See Contrast table(2)
	70	Warning Label MT3KUC	See Contrast table(2)
	70	Warning Label MT3E	See Contrast table(2)
	70	Warning Label MT3D	See Contrast table(2)
	70	Warning Label MT3DL	See Contrast table(2)
	71	Back Label MT3KUC	See Contrast table(2)
	71	Back Label MT3MY	See Contrast table(2)
	71	Back Label MT3NV	See Contrast table(2)
	71	Back Label MT3DBD	See Contrast table(2)
	71	Back Label MT3DL	See Contrast table(2)
	72	Fuse Caution Label	See Contrast table(2)
NSP	73	Front Panel	500PMT101001
NSP	74	GND. Copper Plate C	650PMT152000
NSP	75	GND. Copper Plate D	650PMT153000
NSP	76	GND. Copper Plate E	650PMT155000
NSP	77	Control Panel Plate	650PMT116010
NSP	78	Front Cover	See Contrast table(2)
NSP	79	Display Lens	500PMT106010
NSP	80	Illuminated Ring	509PMT105000
NSP	81	CD Door	500PMT102001
NSP	82	CD Door Cover	600PMT120010
	83	• • • • • •	
	84	PCB Insulation Sheet	650PMT157000
	85	CD Caution Label	See Contrast table(2)
NSP	86	Fuse Label	See Contrast table(2)
	87	Voltage Sel. Cover	See Contrast table(2)
	88	Voltage Sel. Knob	See Contrast table(2)
NSP	89	Serial Label	See Contrast table(2)
	90	Tube AWG5 D4.72 L70	728000047L07
	91	Tube AWG5 D4.72 L90	728000047L09
	92	Tube AWG1 D7.35 L120	728000073L12
	93	Tube AWG1 D7.35 L160	728000073L16
	94	Tube AWG1 D7.35 L15	728000073L15
	95	Ref Silver Label	See Contrast table(2)

(2) CONTRAST TABLE

XR-MT3/KUCXCN, MYXCN, NVXCN, DBDXCN and DLXCN/NC are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				
			KUCXCN	MYXCN	NVXCN	DBDXCN	DLXCN/NC
	12	DISPLAY PCB Assy	DIP-PMT1E	DIP-PMT1E-E	DIP-PMT1E-E	DIP-PMT1E-DL	DIP-PMT1E-DL
	18	POWER PCB Assy	GEN-PMT1E-UL	GEN-PMT1E-GA	GEN-PMT1E-GA	GEN-PMT1E-DL	GEN-PMT1E-DL
	19	S-Assy PMT1 FP01	SUBPMT1FP01	Not used	Not used	SUBPMT1FP01	SUBPMT1FP01
	19	S-Assy PMT1 FP02	Not used	SUBPMT1FP02	SUBPMT1FP02	Not used	Not used
	20	TUNER PCB Assy	TUN-PMT1E-UL	TUN-PMT1E-EU	TUN-PMT1E-EU	TUN-PMT1E-DL	TUN-PMT1E-DL
⚠	26	Power TF EI35 120V	123113513020	Not used	Not used	Not used	Not used
⚠	26	Power TF EI35 230V	Not used	123183513140	123183513140	Not used	Not used
⚠	26	Power TF EI35 11-2	Not used	Not used	Not used	1231D3513140	1231D3513140
⚠	27	Power TF EI66 120V	123516636021	Not used	Not used	Not used	Not used
⚠	27	Power TF EI66 230V	Not used	123586636142	123586636142	Not used	Not used
⚠	27	Power TF EI66 11-2	Not used	Not used	Not used	1235D6636140	1235D6636140
⚠	29	Fuse #23901.6 (1.6A)	124016020001	Not used	Not used	Not used	Not used
⚠	29	Fuse #21801.6 (1.6A)	Not used	124016000002	124016000002	124016000002	124016000002
⚠	32	PLA-ULP-6'06"-SP2NMG	134117120108	Not used	Not used	Not used	Not used
⚠	32	PLA-VDE-6'06"-VDG	Not used	134220120001	Not used	Not used	134220120001
⚠	32	PLA-MOU-6'06"-BS6	Not used	Not used	134240120014	Not used	Not used
⚠	32	PLA-JIS-6'06"-JIS	Not used	Not used	Not used	134100120001	Not used
	34	Top Panel	500PMT104001	500PMT104001	500PMT104001	500PMT148001	500PMT148001
	36	Back Cover	500PMT113001	500PMT181000	500PMT181000	500PMT113001	500PMT113001
	58	Display Filter Plate	650PMT147001	650PMT147002	650PMT147002	650PMT147002	650PMT147002
	64	Bushing	700PMT156000	700PMT146000	700PMT146000	700PMT146000	700PMT146000
	66	65 Label	809PMT194010	Not used	Not used	Not used	Not used
	68	FCC Label	809PMT194030	Not used	Not used	Not used	Not used
NSP	69	Serial No Barcode Label	809PMT194040	809PMT194120	809PMT194090	Not used	Not used
	70	Warning Label MT3KUC	809PMT194050	Not used	Not used	Not used	Not used
	70	Warning Label MT3E	Not used	809PMT194080	809PMT194080	Not used	Not used
	70	Warning Label MT3D	Not used	Not used	Not used	809PMT194100	Not used
	70	Warning Label MT3DL	Not used	Not used	Not used	Not used	809PMT194110
	71	Back Label MT3KUC	809PMT196010	Not used	Not used	Not used	Not used
	71	Back Label MT3MY	Not used	809PMT196020	Not used	Not used	Not used
	71	Back Label MT3NV	Not used	Not used	809PMT196030	Not used	Not used
	71	Back Label MT3DBD	Not used	Not used	Not used	809PMT196040	Not used
	71	Back Label MT3DL	Not used	Not used	Not used	Not used	809PMT196050
	72	Fuse Caution Label	809036380130	Not used	Not used	Not used	Not used
NSP	78	Front Cover	600PMT119010	600PMT119020	600PMT119020	600PMT119010	600PMT119010
	85	CD Caution Label	Not used	809PMT194070	809PMT194070	809PMT194070	809PMT194070
NSP	86	Fuse Label	Not used	809PMT194130	809PMT194130	809PMT194130	809PMT194130
	87	Voltage Sel. Cover	Not used	Not used	Not used	500PMT110001	500PMT110001
	88	Voltage Sel. Knob	Not used	Not used	Not used	510PMT112001	510PMT112001
NSP	89	Serial Label	Not used	Not used	Not used	809000009000	809000009000
	95	Ref Silver Label	Not used	809PMT151000	809PMT151000	Not used	Not used

2.2 CD MECHA. SECTION

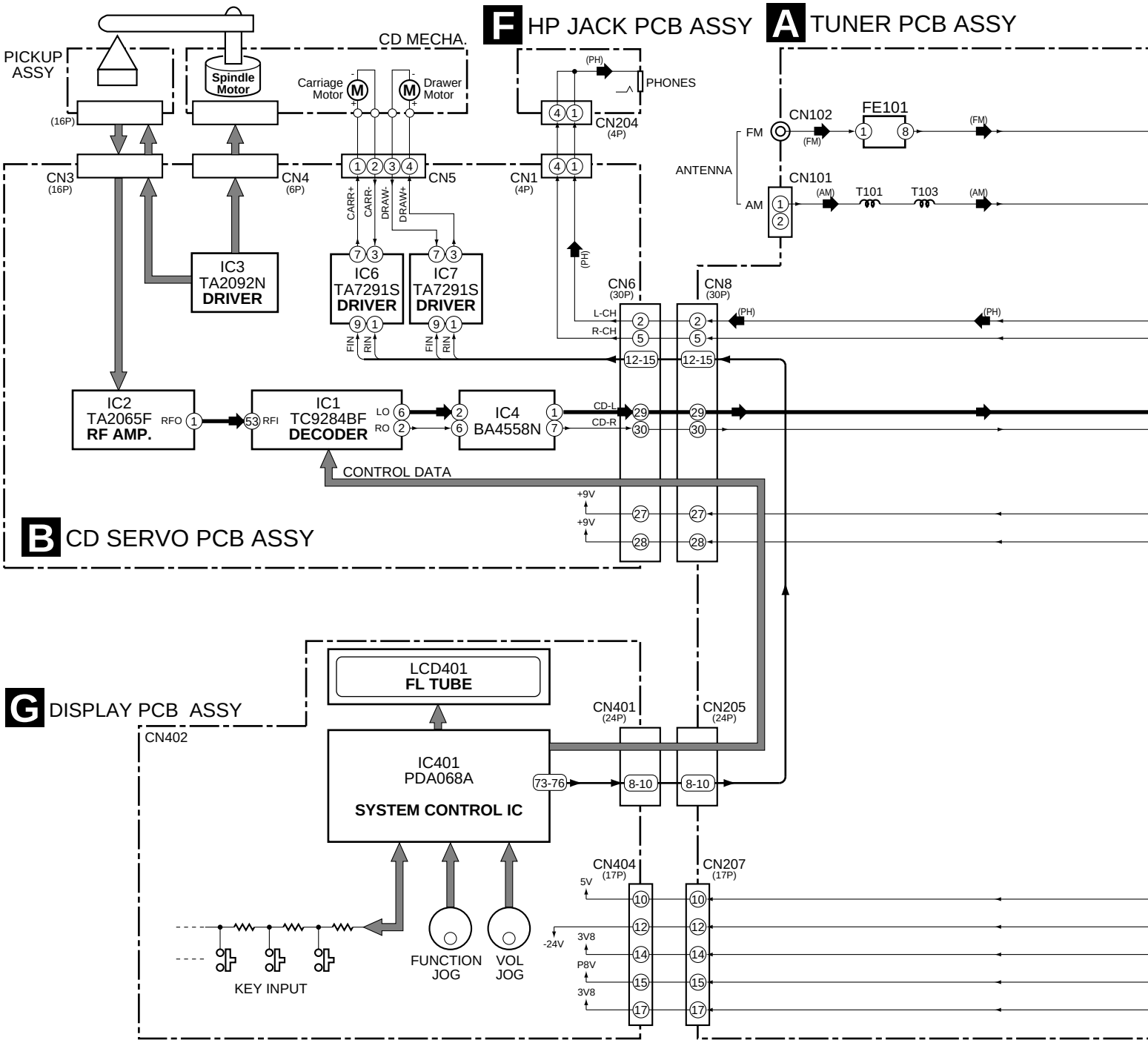


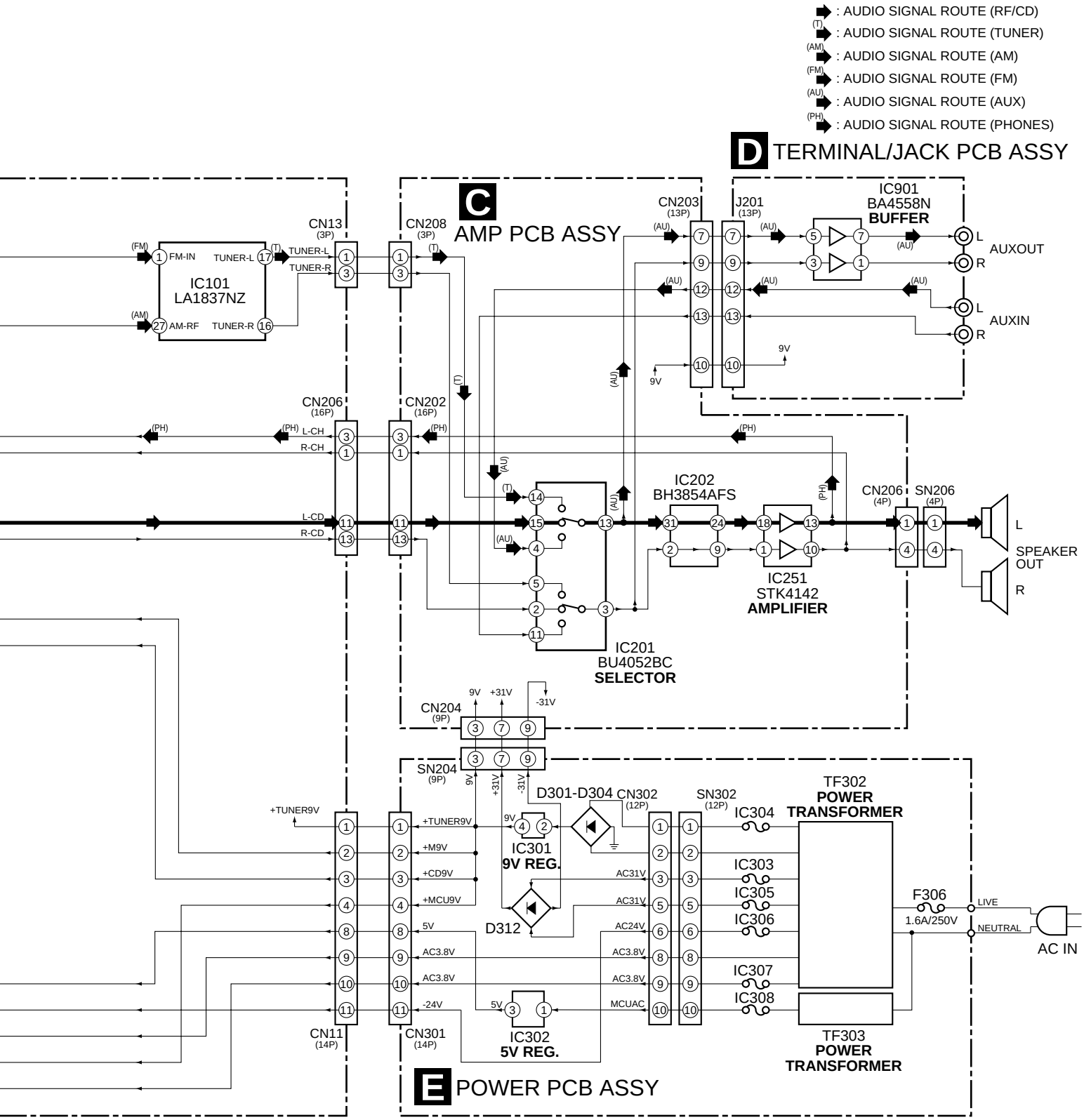
● CD MECHA. SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Assy Chassis	45-093-4256
	2	Drawer 2	45-264-3278
	3	Assy Holder L	45-093-3241
	4	Assy Holder R3B	45-093-3296
	5	Assy Gear Drive	45-093-4243
	6	Assy Carriage 101	45-093-4347
	7	Bevel Gear 4	45-222-4214
	8	Assy Gear Star	45-093-4244
	9	Cover 2	45-112-3154
	10	Shaft	45-300-4173
	11	Slider 4	45-259-3175
	12	Gear Spline	45-222-4021
	13	Bevel Gear 1	45-222-4059
	14	Gear Idler 1	45-222-4176
	15	Plate Spring	45-160-4174
	16	Bevel Gear 3	45-222-4177
	17	Pulley C	45-222-4058
	18	Assy Clamper SO	45-093-4358
	19	Arm Slider R	45-219-3187
	20	Arm Slider L	45-219-3188
	21	Slider 1	45-259-2185
	22	Assy Slider 2	45-093-3240
	23	Arm Stopper A2	45-239-4279
	24	Arm Stopper B	45-239-4065
	25	Gear Idler A	45-222-4128
	26	Gear Idler C	45-222-4051
	27	Lever 2	45-259-3289
	28	Lifter	45-259-3025
	29	Pulley A	45-229-4052
	30	Assy Motor CRG S	45-093-4238
	31	Assy Motor DRW S	45-093-4239
	32	Spring	01-080-4541
	33	Spring	01-082-4643
	34	Spring	01-082-4647
	35	Belt	02-083-4171
	36	Belt	02-083-4172
	37	Cushion	45-063-4136
	38	Insulator	45-063-3201
	39	Insulator	45-063-3202
	40	Pickup Unit	KSM213CCM
	41	Assy Carriage 201	45-093-4348
	42	Assy Carriage 301	45-093-4349
	43	Spacer SW	45-219-4127
	44	Assy PC Board A	45-093-4263
	45	Assy PC Board B	45-093-4265
	46	Assy PC Board C	45-093-4264
	47	Rubber Cushion	45-063-4115
	48	Washer	GWP15×045025S
	49	Screw	GSL20A2606
	50	Screw	GSL20B2006
	51	Screw	GSL10B2006
	52	Washer	GWN31×120050
	53	Screw	GSL15A2608
	54	Screw	GSP14A2604
	55	Screw	GST15A2005
	56	Lead Wire	45-072-4171
	57	Lead Wire	45-072-4172

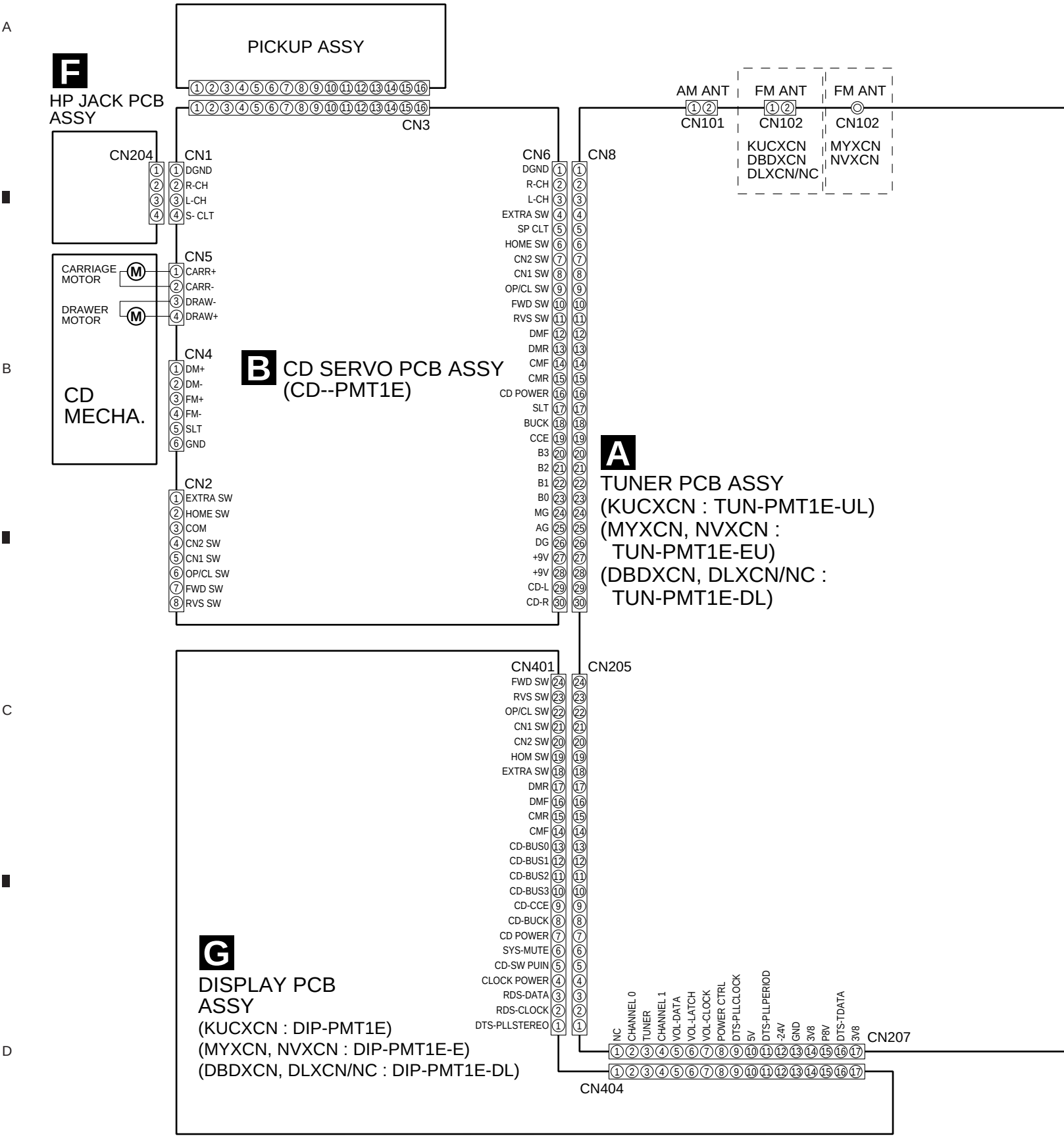
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

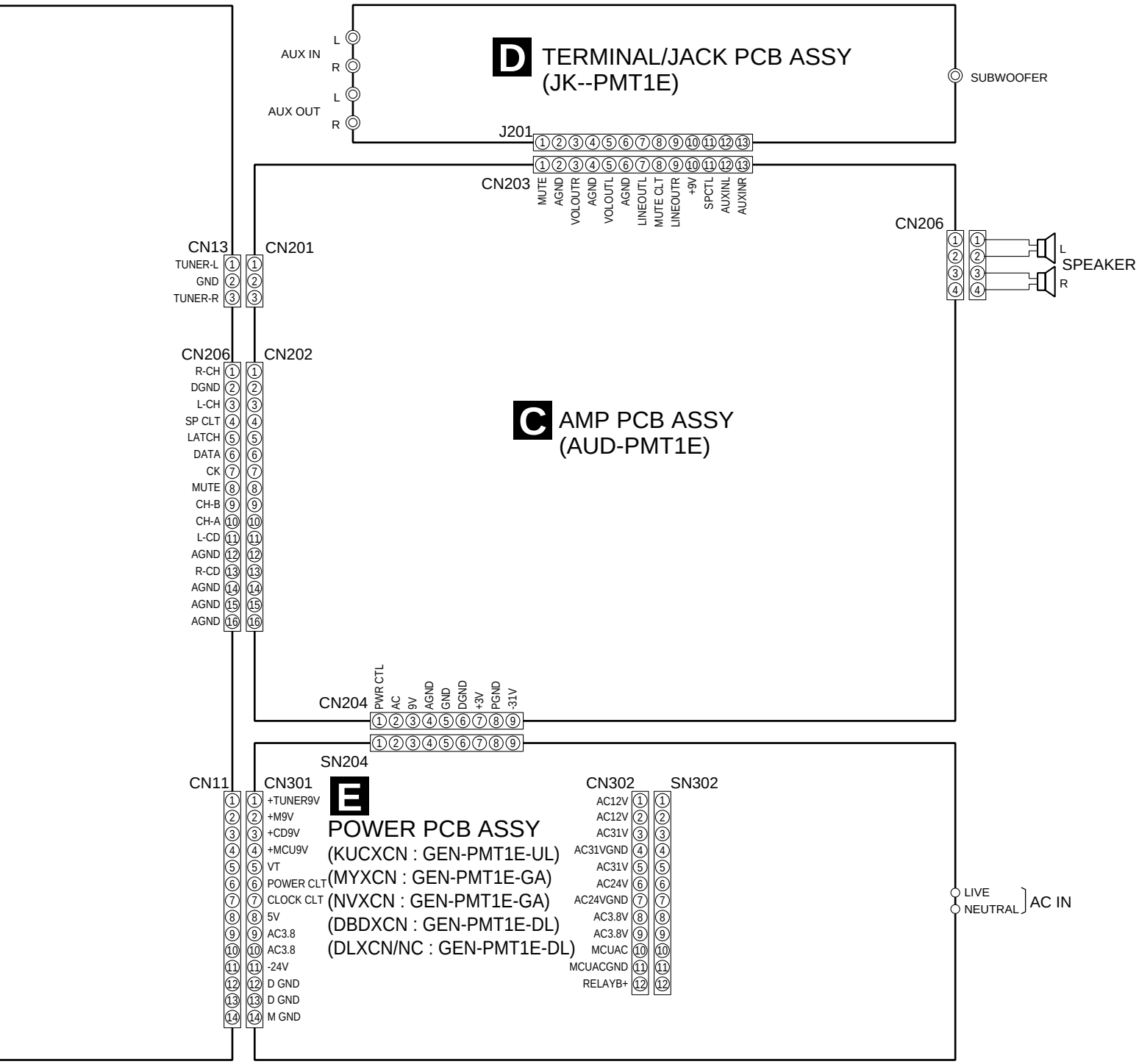



: AUDIO SIGNAL ROUTE (RF/CD)
: AUDIO SIGNAL ROUTE (TUNER)
: AUDIO SIGNAL ROUTE (AM)
: AUDIO SIGNAL ROUTE (FM)
: AUDIO SIGNAL ROUTE (AUX)
: AUDIO SIGNAL ROUTE (PHONES)
D TERMINAL/JACK PCB ASSY
C AMP PCB ASSY
IC101 LA1837NZ
FM-IN
TUNER-L
TUNER-R
AM-RF
CN13 (3P)
CN208 (3P)
CN203 (13P)
J201 (13P)
IC901 BA4558N BUFFER
AUXOUT
AUXIN
CN206 (16P)
CN202 (16P)
L-CH
R-CH
L-CD
R-CD
IC202 BH3854AFS
IC251 STK4142 AMPLIFIER
CN206 (4P)
SN206 (4P)
SPEAKER OUT
IC201 BU4052BC SELECTOR
9V
+31V
-31V
CN204 (9P)
SN204 (9P)
+TUNER9V
+M9V
+CD9V
+MCU9V
5V
AC3.8V
-24V
IC301 9V REG.
IC302 5V REG.
D301-D304
D312
CN302 (12P)
SN302 (12P)
AC31V
AC24V
MCUAC
IC304
IC303
IC305
IC306
IC307
IC308
TF302 POWER TRANSFORMER
TF303 POWER TRANSFORMER
F306
1.6A/250V
LIVE
NEUTRAL
AC IN
CN11 (14P)
CN301 (14P)
E POWER PCB ASSY

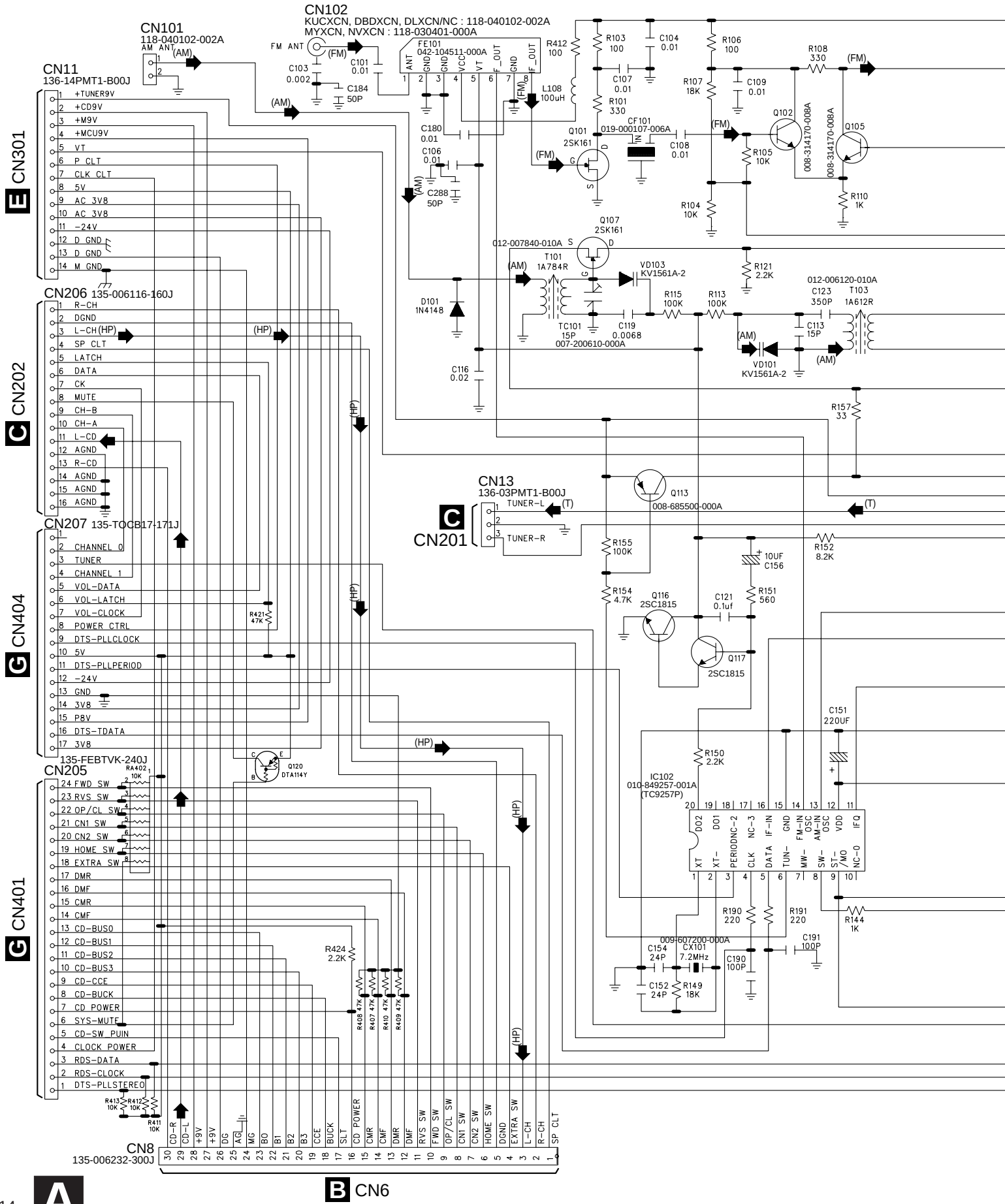
3.2 OVERALL WIRING DIAGRAM

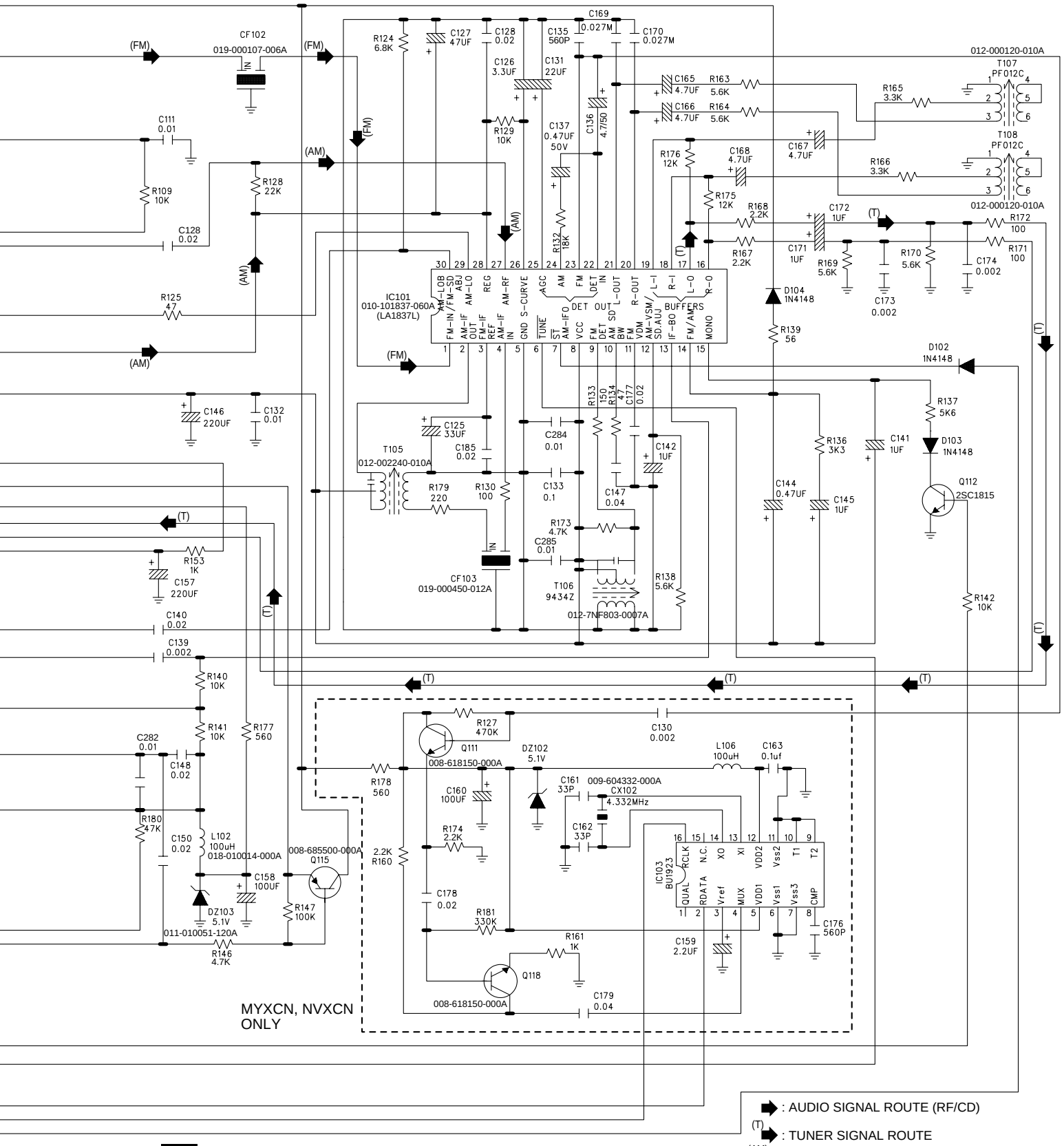


Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



3.3 TUNER PCB ASSY





: AUDIO SIGNAL ROUTE (RF/CD)

(T) : TUNER SIGNAL ROUTE

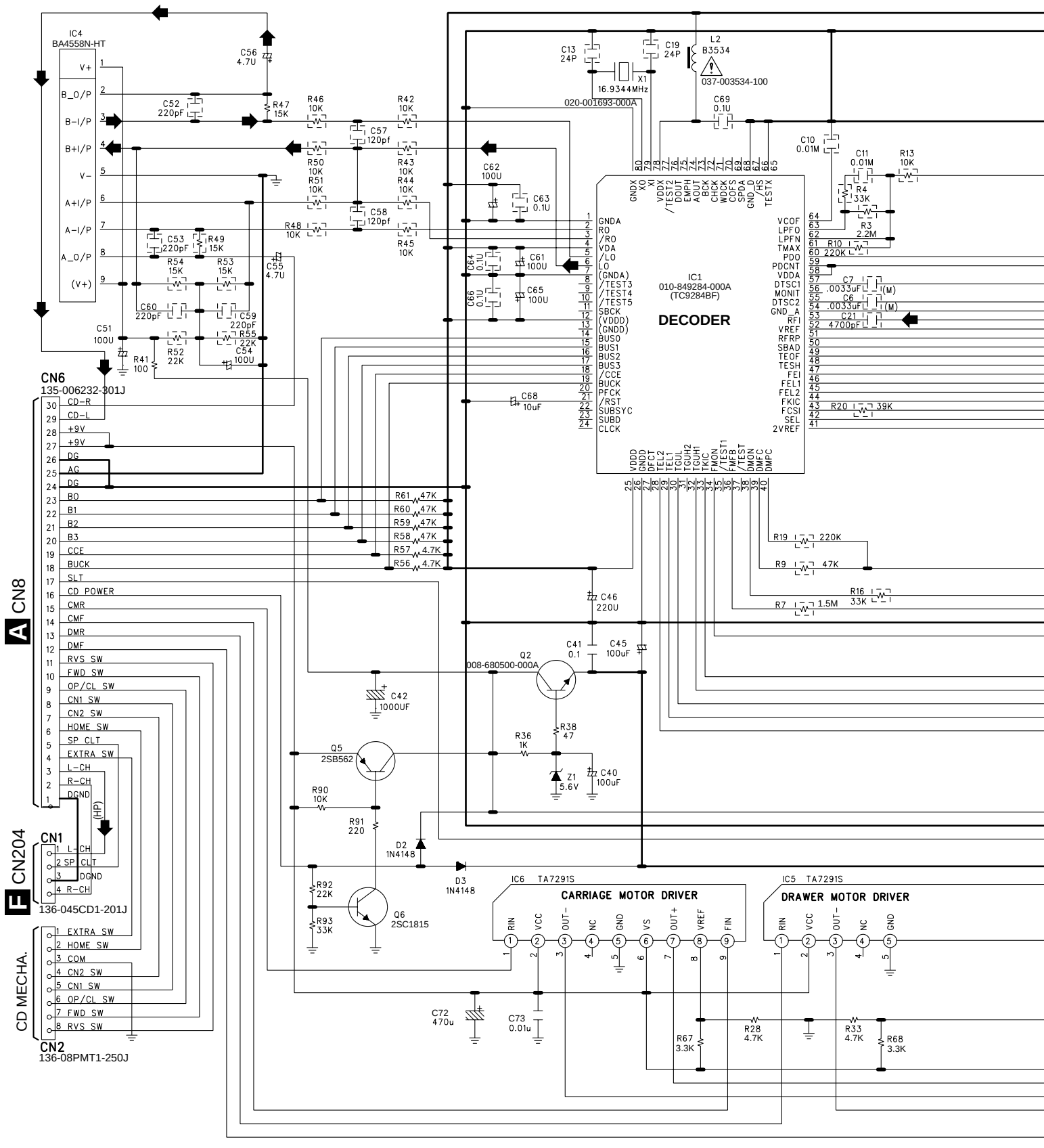
(AM) : TUNER SIGNAL ROUTE (AM)

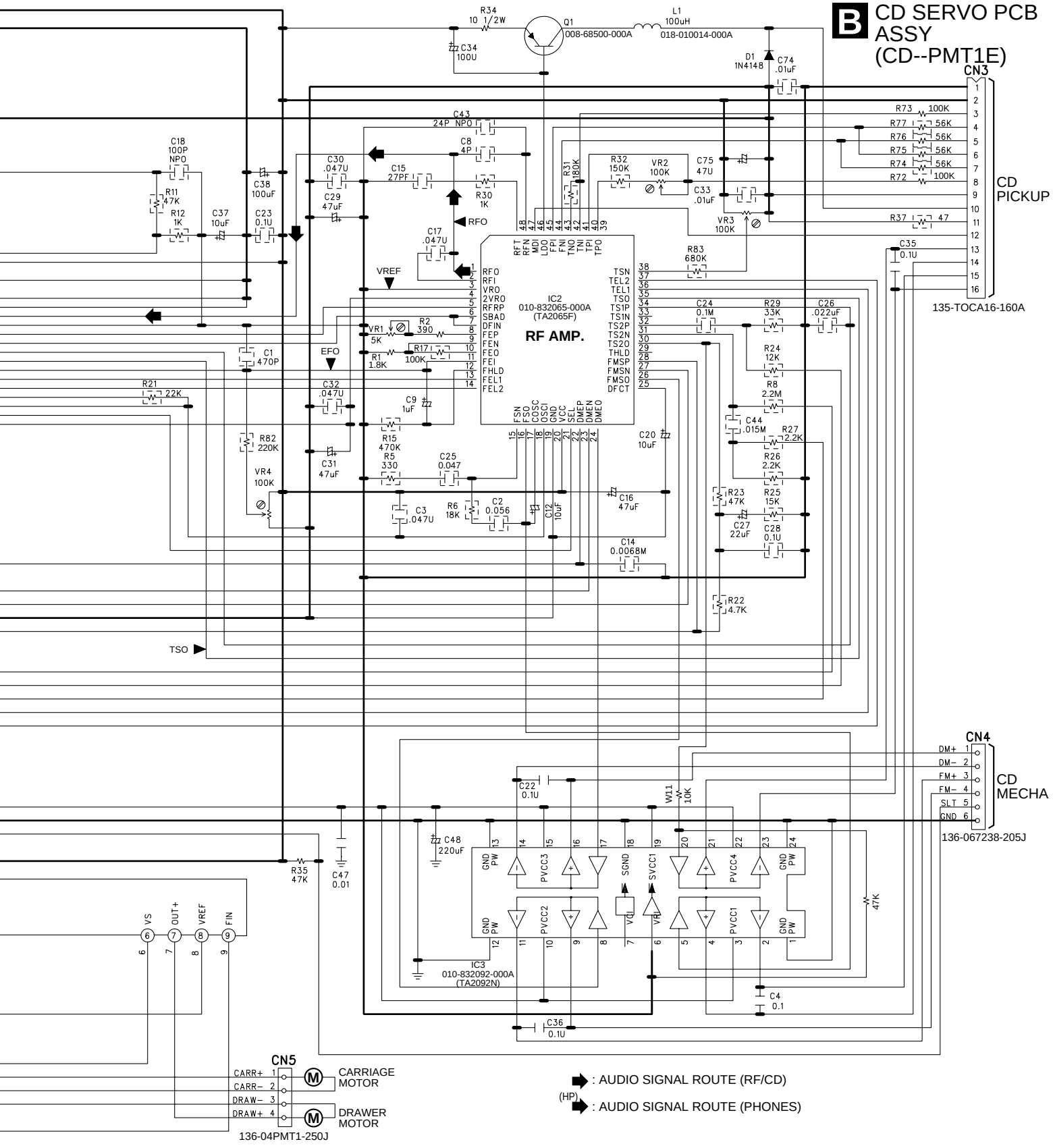
(FM) : TUNER SIGNAL ROUTE (FM)

(HP) : AUDIO SIGNAL ROUTE (PHONES)

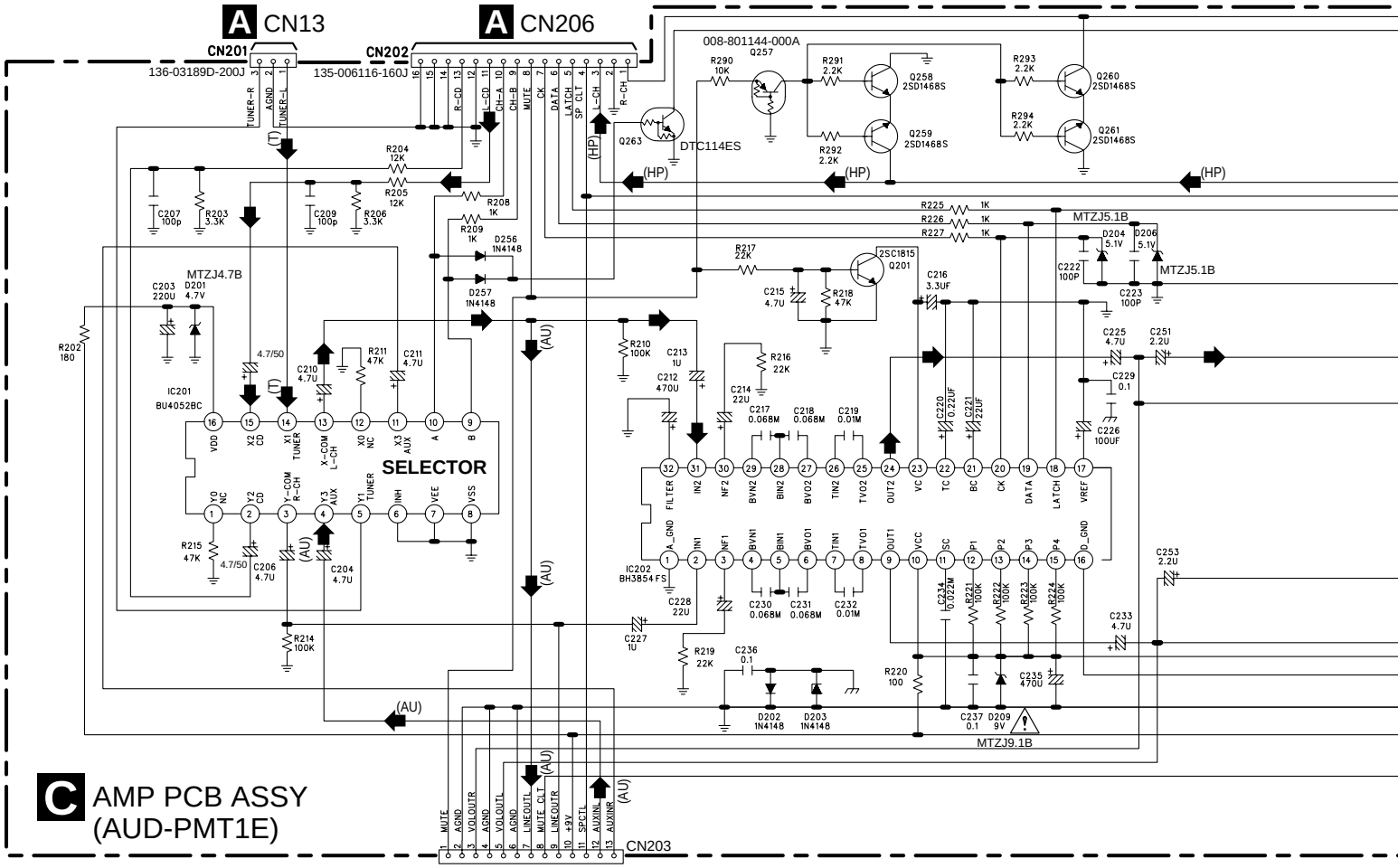
A TUNER PCB ASSY
(KUCXCN : TUN-PMT1E-UL)
(MYXCN, NVXCN : TUN-PMT1E-EU)
(DBDXCN, DLXCN/NC : TUN-PMT1E-DL)

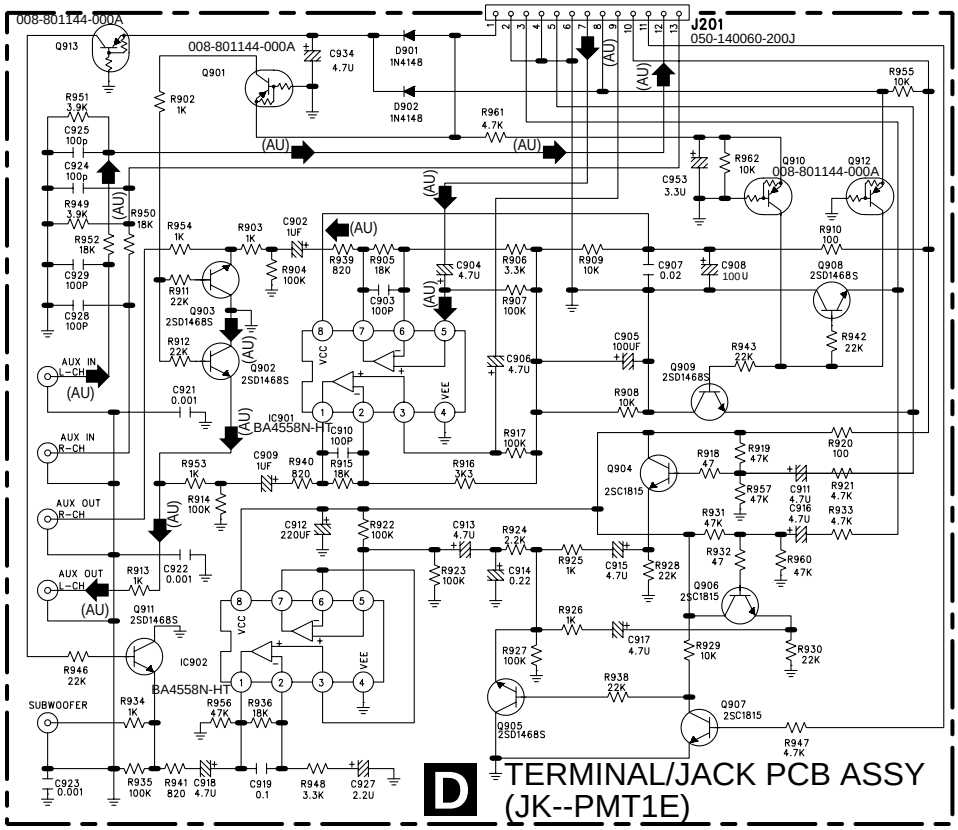
3.4 CD SERVO PCB ASSY

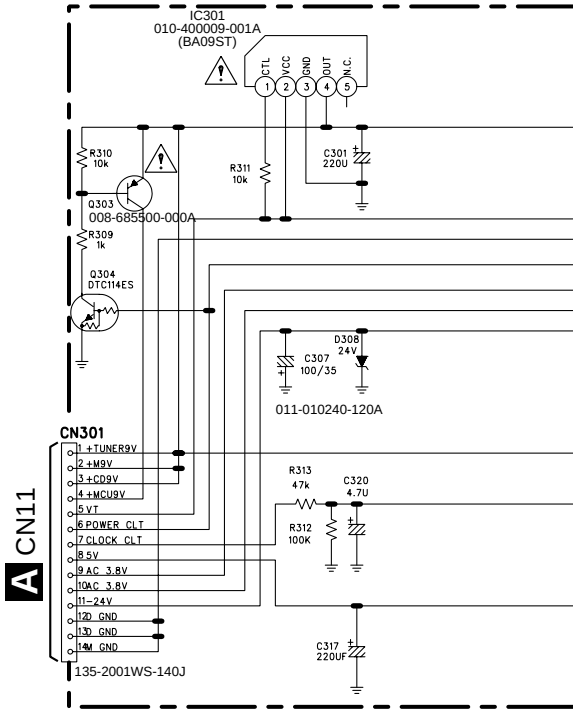



B CD SERVO PCB ASSY (CD--PMT1E)
IC2
010-832065-000A
(TA2065F)
RF AMP.
IC3
010-832092-000A
(TA2092N)
CN3
CD PICKUP
135-TOCA16-160A
CN4
CD MECHA
136-067238-205J
CN5
CARRIAGE MOTOR
DRAWER MOTOR
136-04PMT1-250J
: AUDIO SIGNAL ROUTE (RF/CD)
: AUDIO SIGNAL ROUTE (PHONES)

3.5 AMP PCB, TERMINAL/JACK PCB, POWER PCB and HP JACK PCB ASSYS

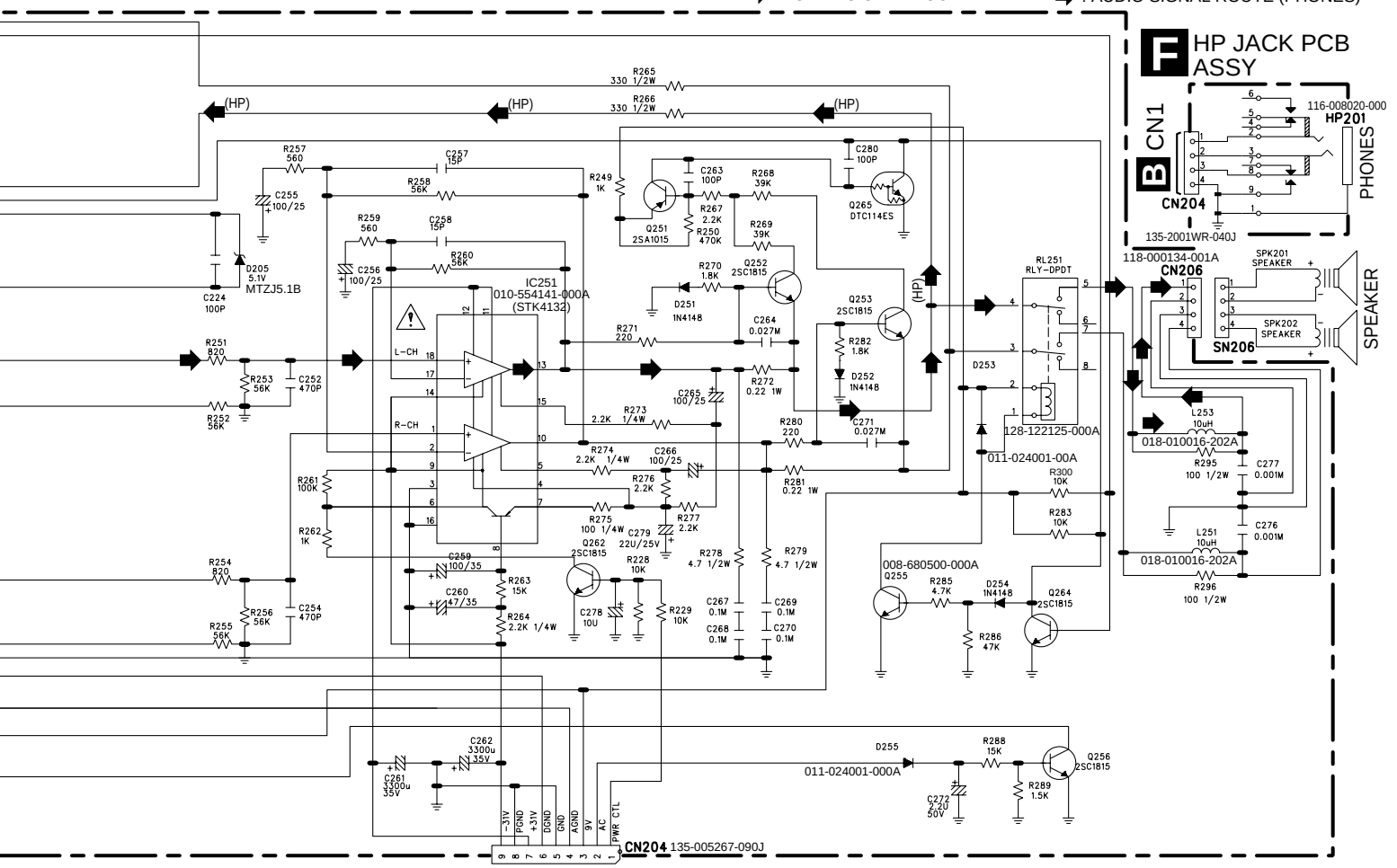


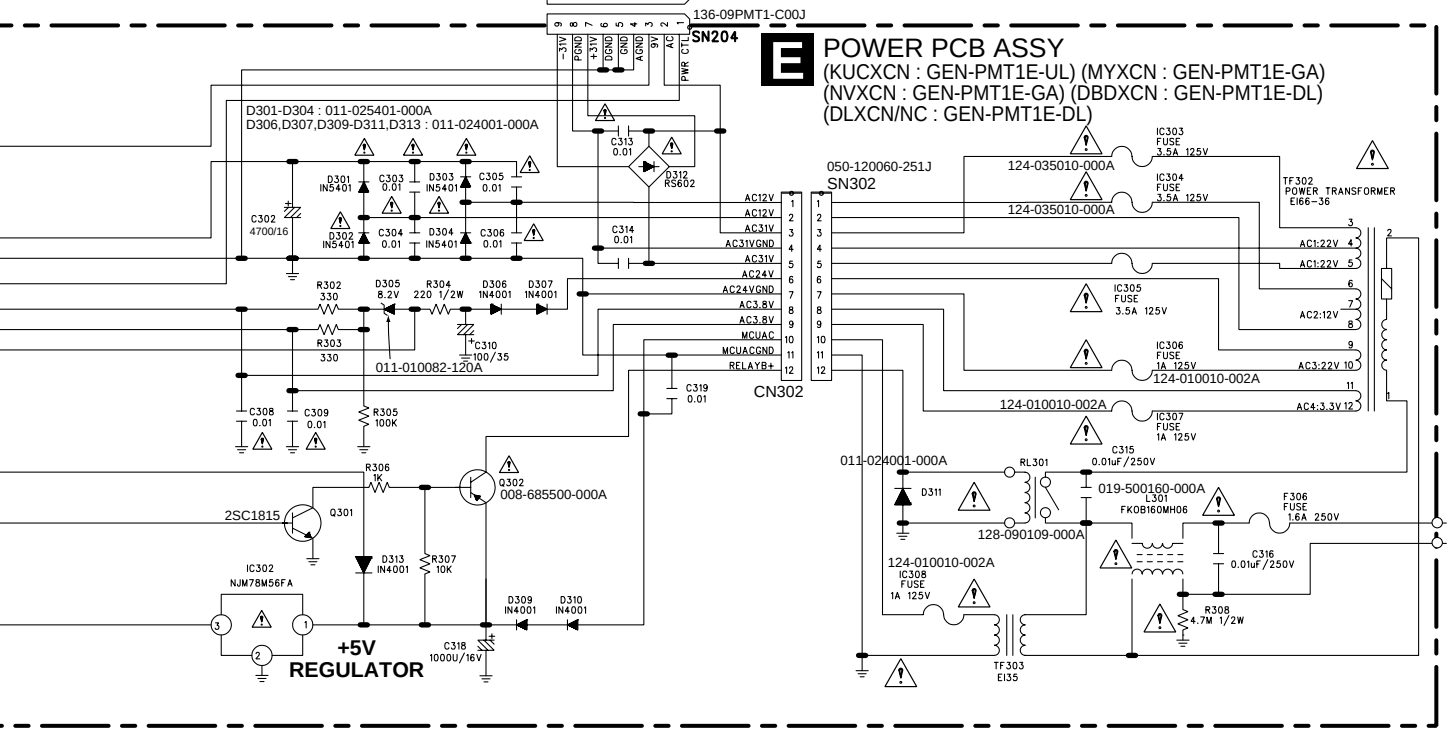




: AUDIO SIGNAL ROUTE (RF/CD) (AU) : AUDIO SIGNAL ROUTE (AUX)

(T) : TUNER SIGNAL ROUTE (HP) : AUDIO SIGNAL ROUTE (PHONES)





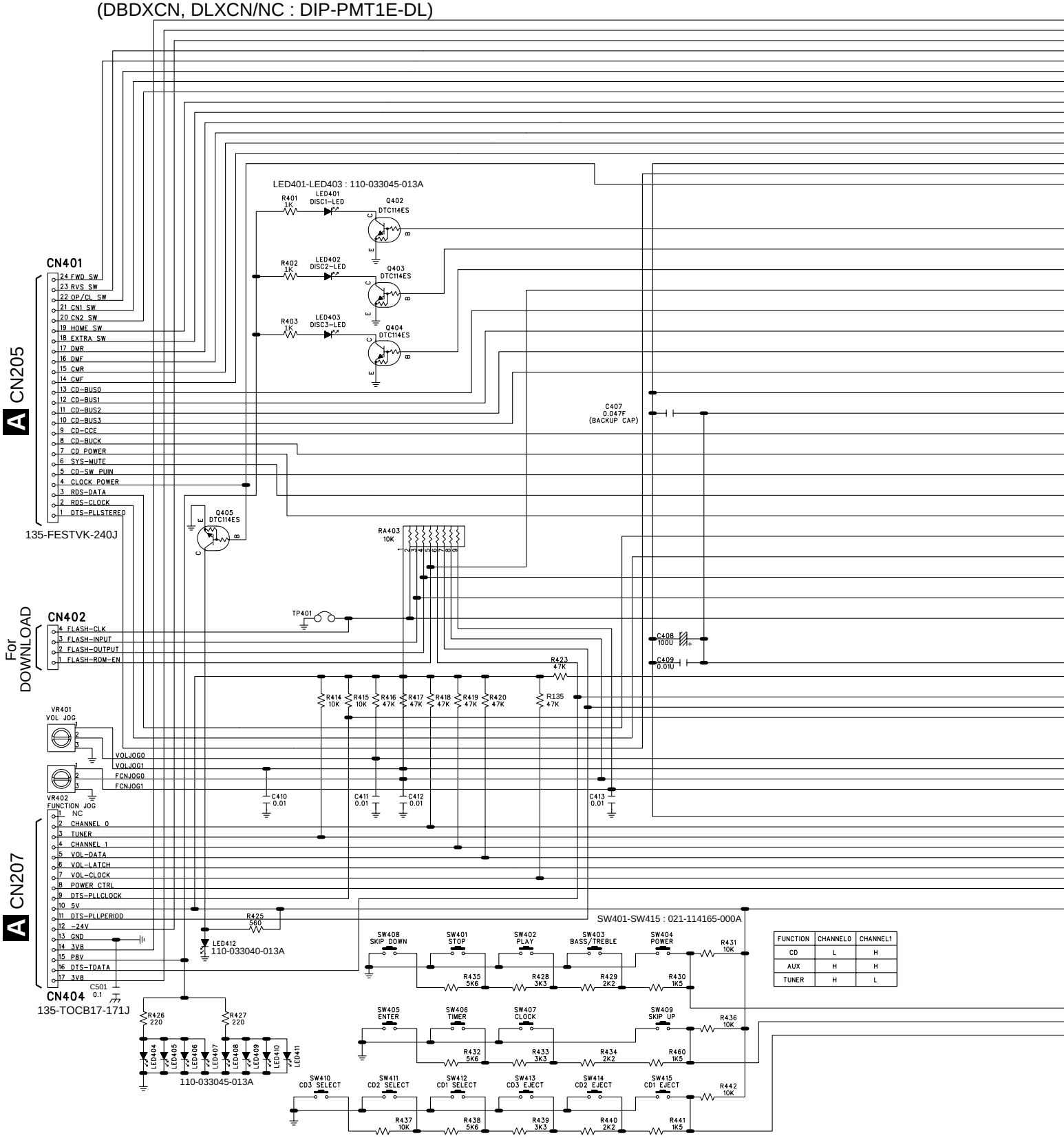
• NOTE FOR FUSE REPLACEMENT

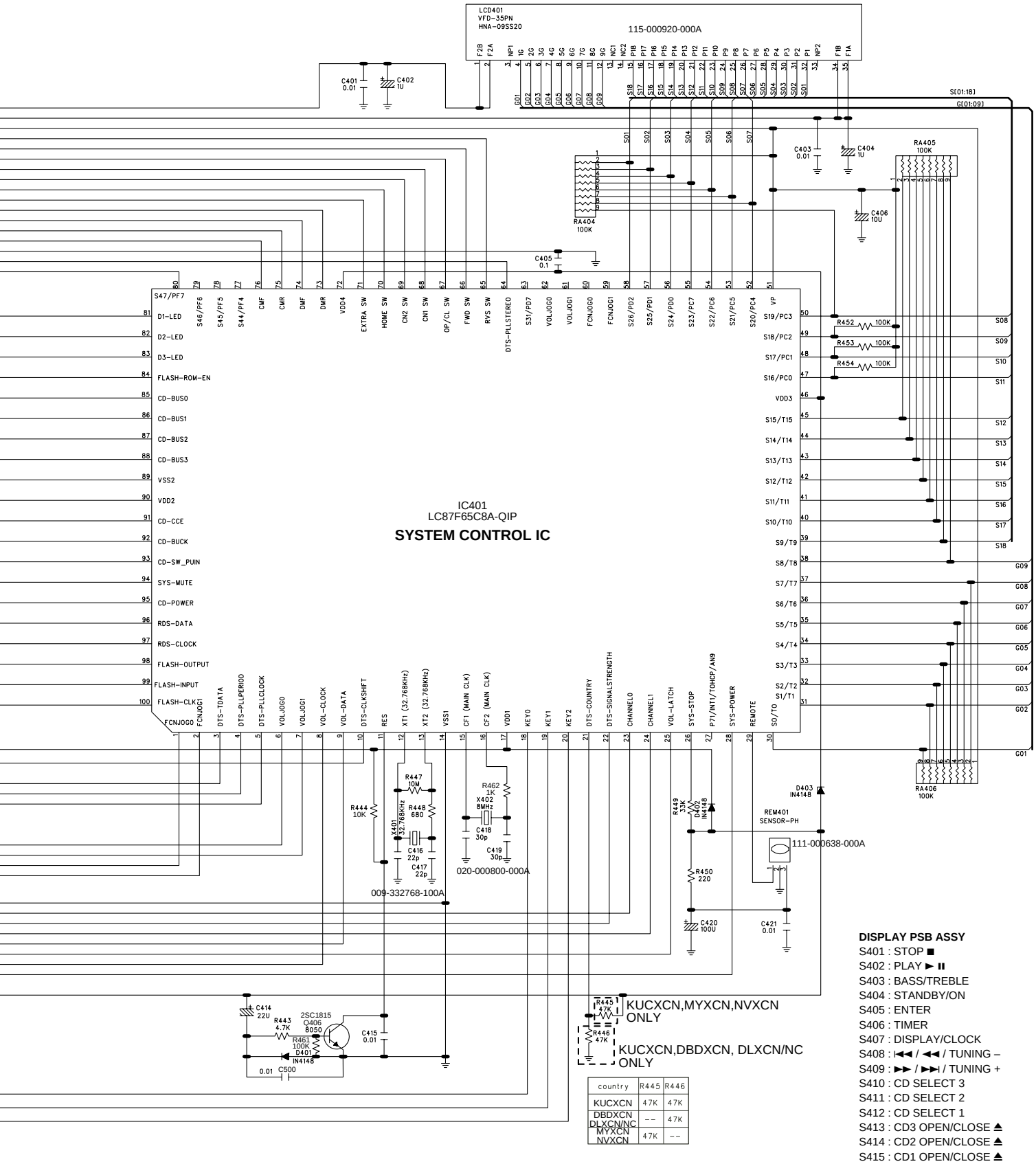
CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE AND RATINGS ONLY.

3.6 DISPLAY PCB ASSY

G DISPLAY PCB ASSY

(KUCXCN : DIP-PMT1E)
(MYXCN, NVXCN : DIP-PMT1E-E)
(DBDXCN, DLXCN/NC : DIP-PMT1E-DL)





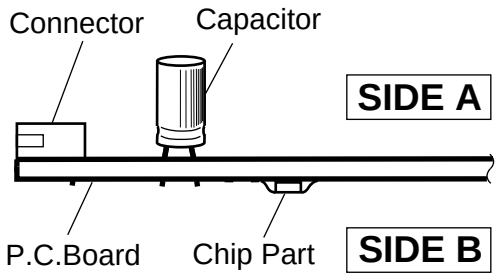
DISPLAY PSB ASSY

S401 : STOP ■
S402 : PLAY ► II
S403 : BASS/TREBLE
S404 : STANDBY/ON
S405 : ENTER
S406 : TIMER
S407 : DISPLAY/CLOCK
S408 : I◄◄ / ◄◄ / TUNING –
S409 : ►► / ►►I / TUNING +
S410 : CD SELECT 3
S411 : CD SELECT 2
S412 : CD SELECT 1
S413 : CD3 OPEN/CLOSE ▲
S414 : CD2 OPEN/CLOSE ▲
S415 : CD1 OPEN/CLOSE ▲

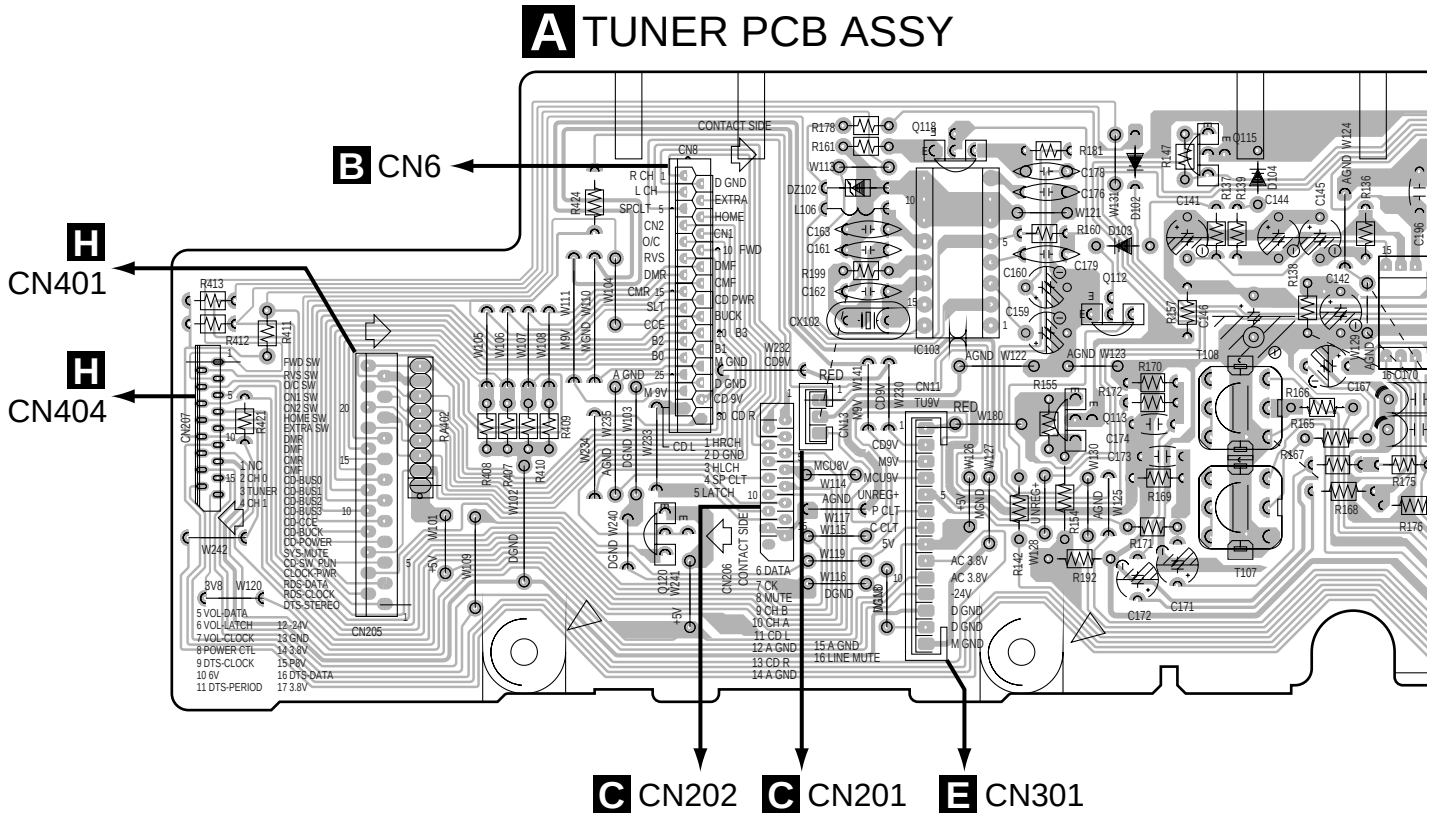
4. PCB CONNECTION DIAGRAM

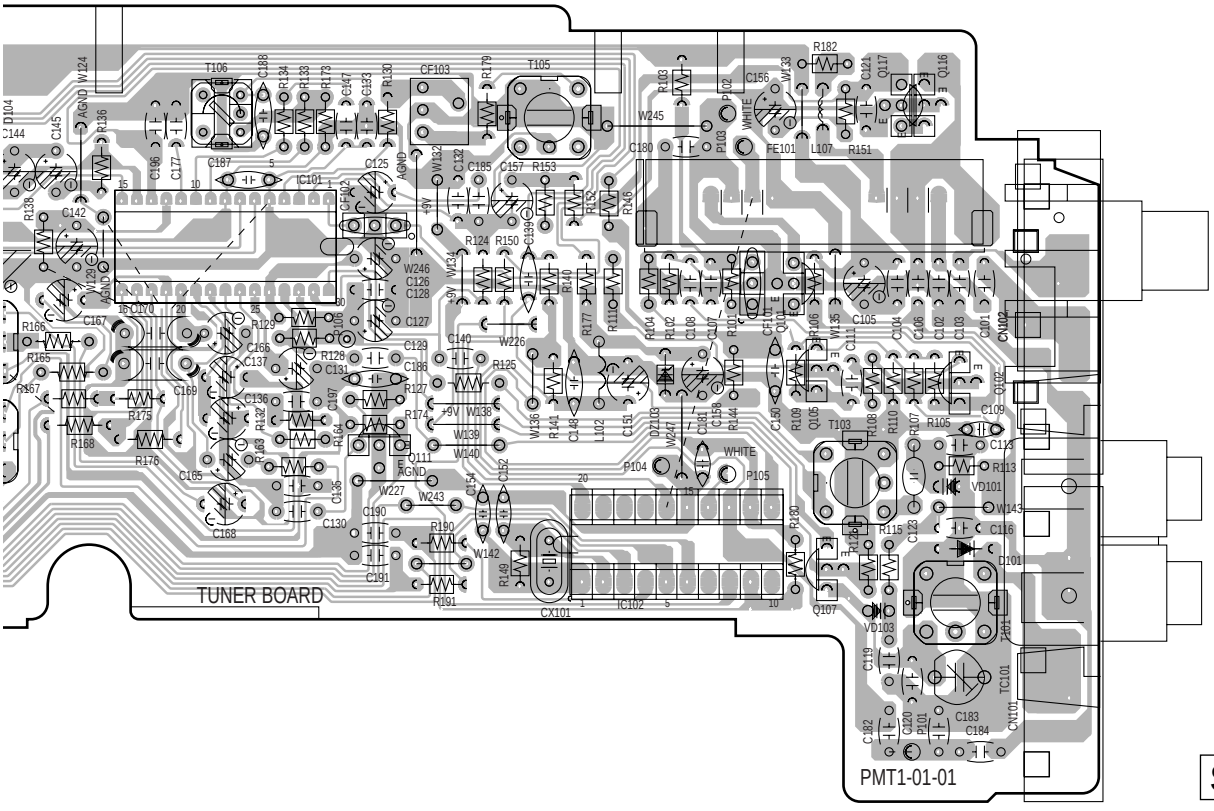
NOTE FOR PCB DIAGRAMS :

- Part numbers in PCB diagrams match those in the schematic diagrams.
- The parts mounted on this PCB include all necessary parts for several destinations.
  For further information for respective destinations, be sure to check with the schematic diagram.
- View point of PCB diagrams.



4.1 TUNER PCB ASSY

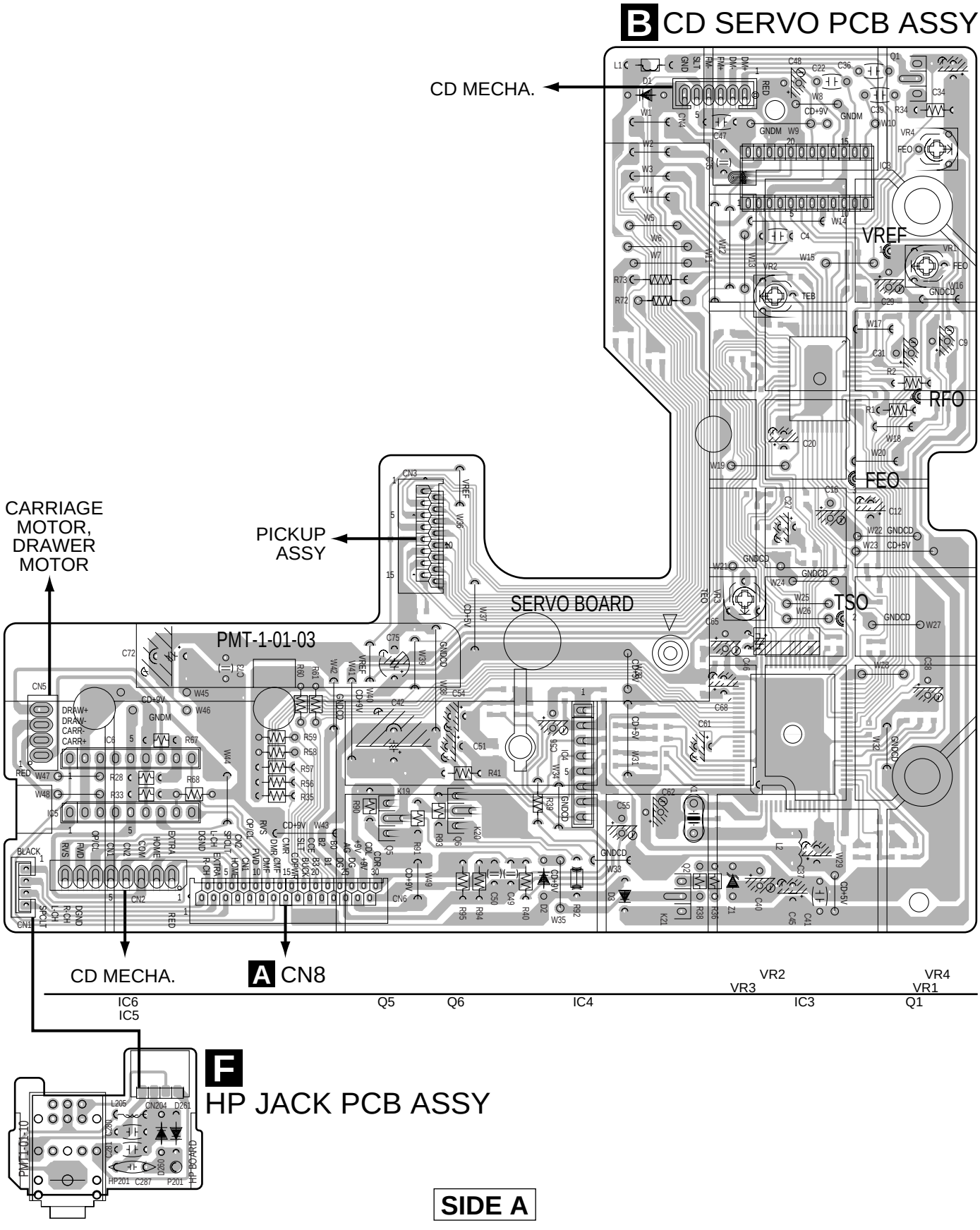




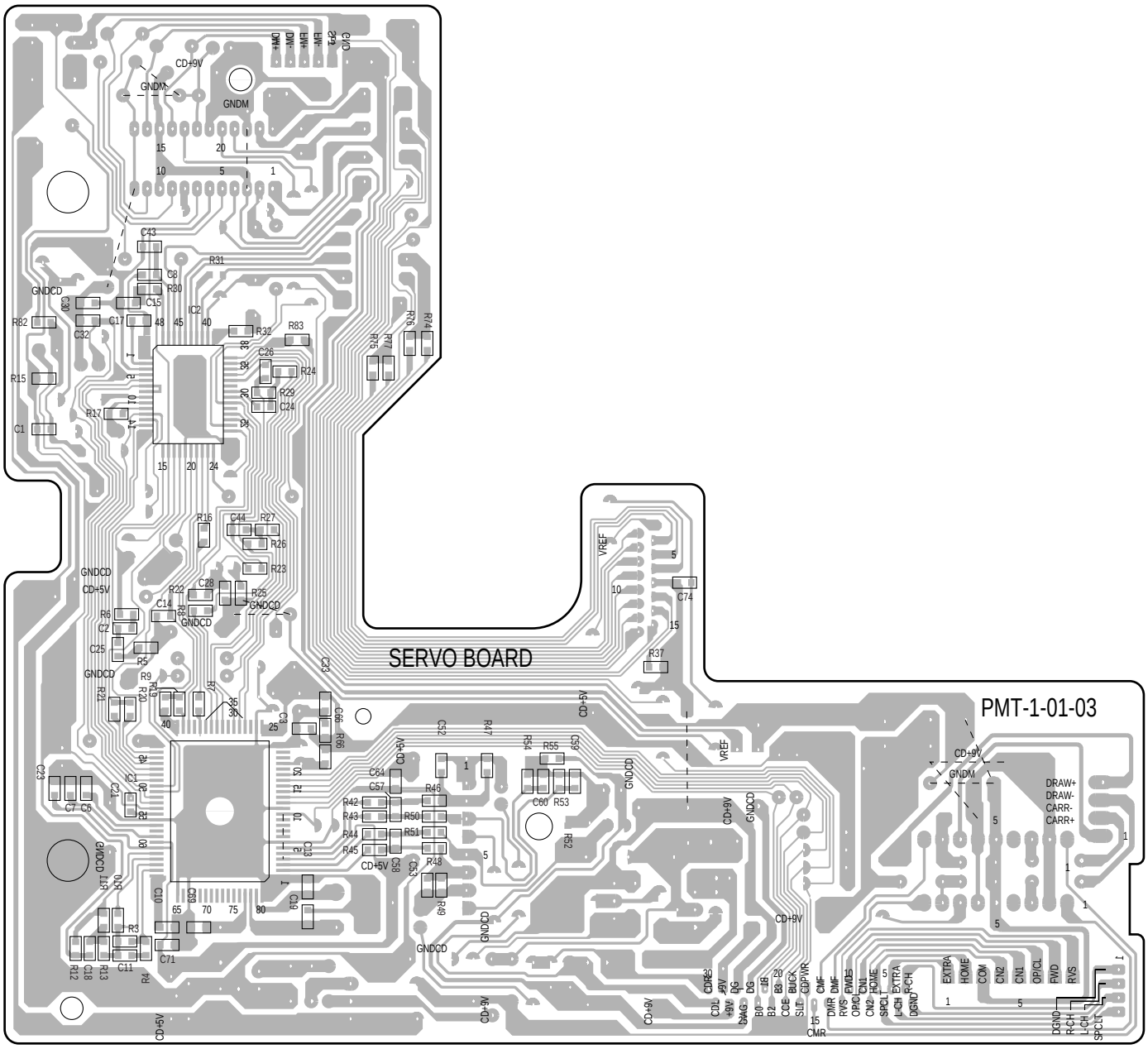
SIDE A

IC101
Q111
Q117 Q116
Q101
Q105
Q102
IC102
Q107

4.2 CD SERVO PCB and HP JACK PCB ASSYS



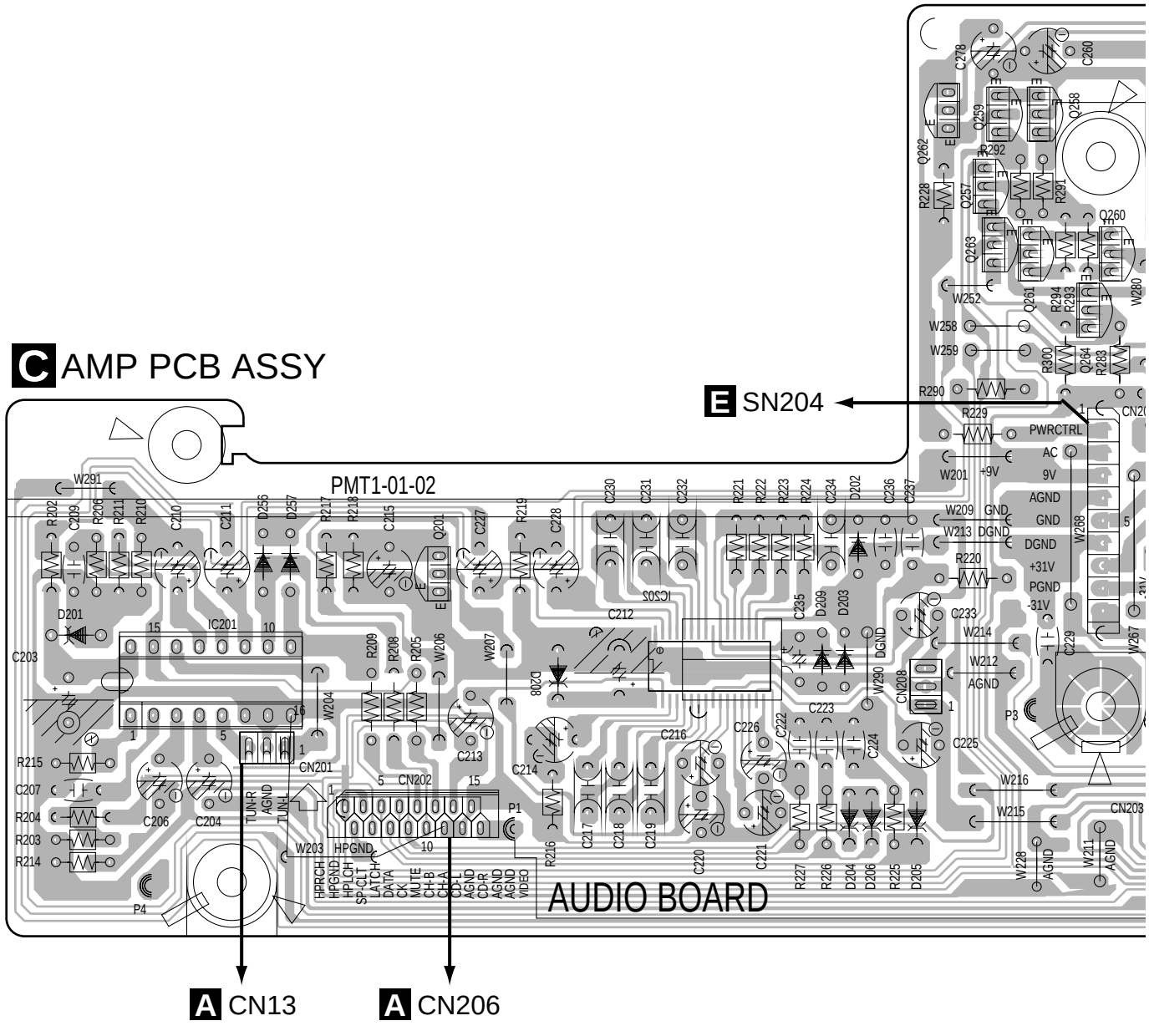
B CD SERVO PCB ASSY

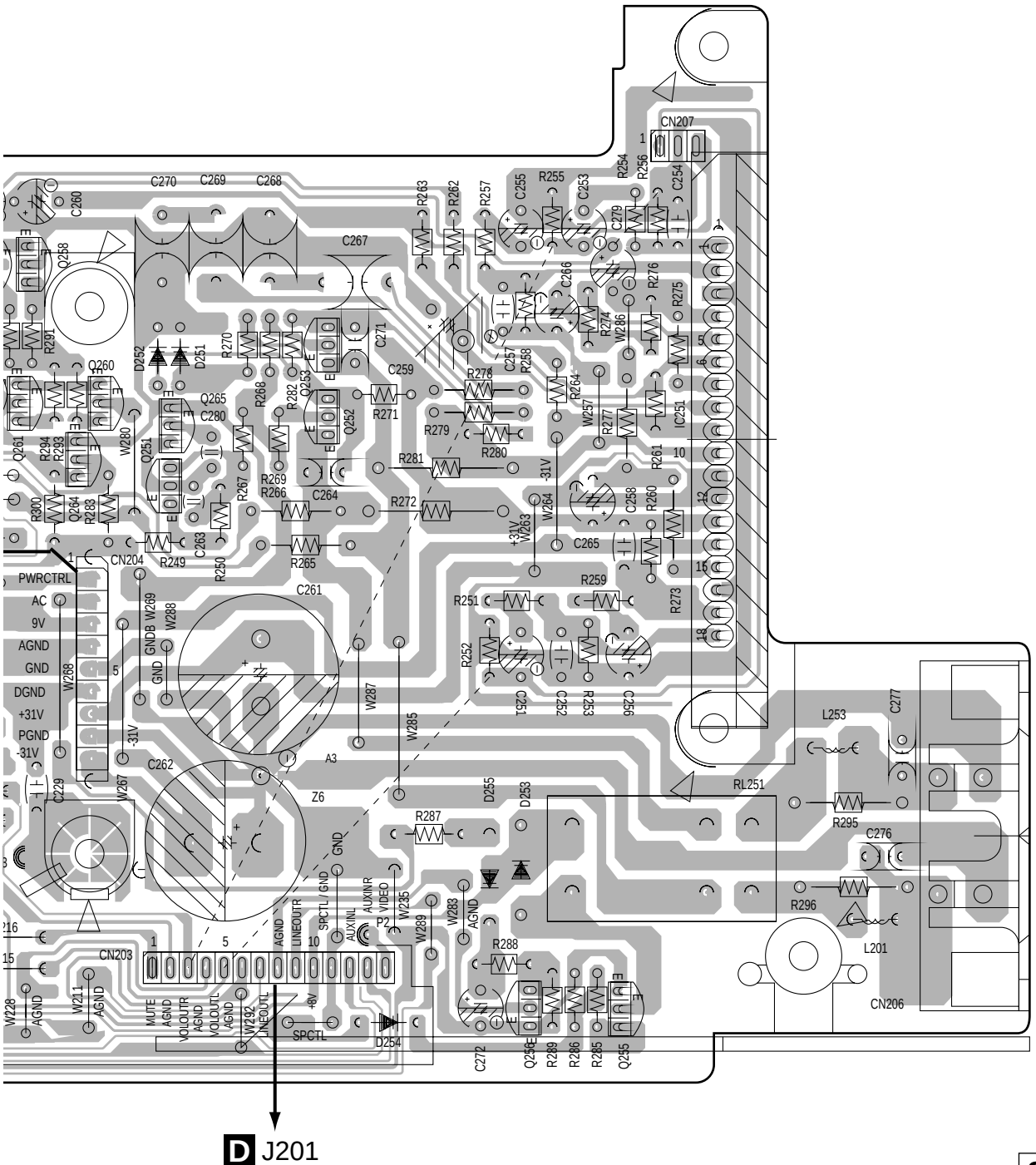


IC2
IC1

SIDE B

4.3 AMP PCB ASSY





D J201

SIDE A

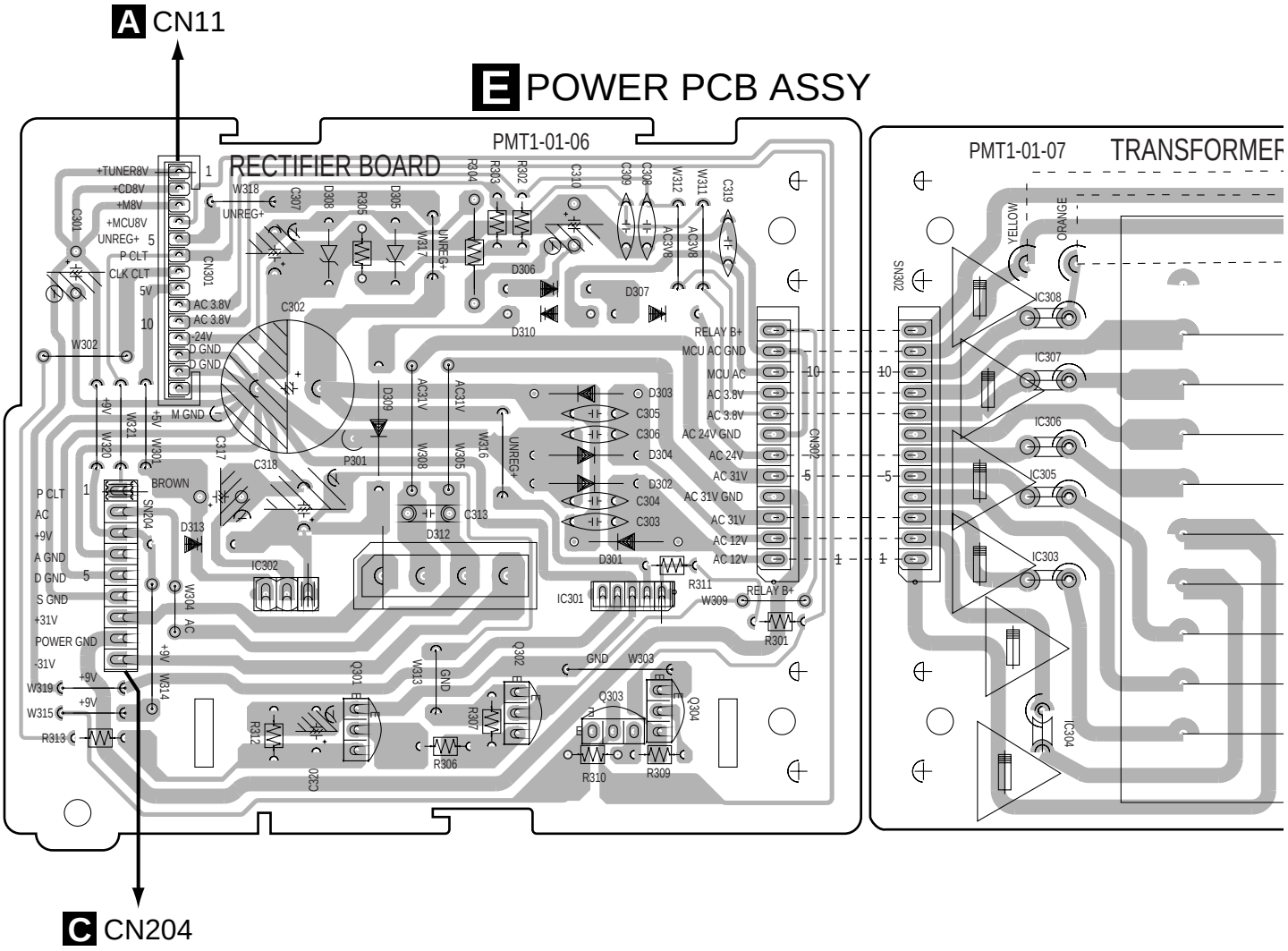
Q253

59

Q261 Q260 Q265 Q252

Q264 Q251

4.4 POWER PCB ASSY



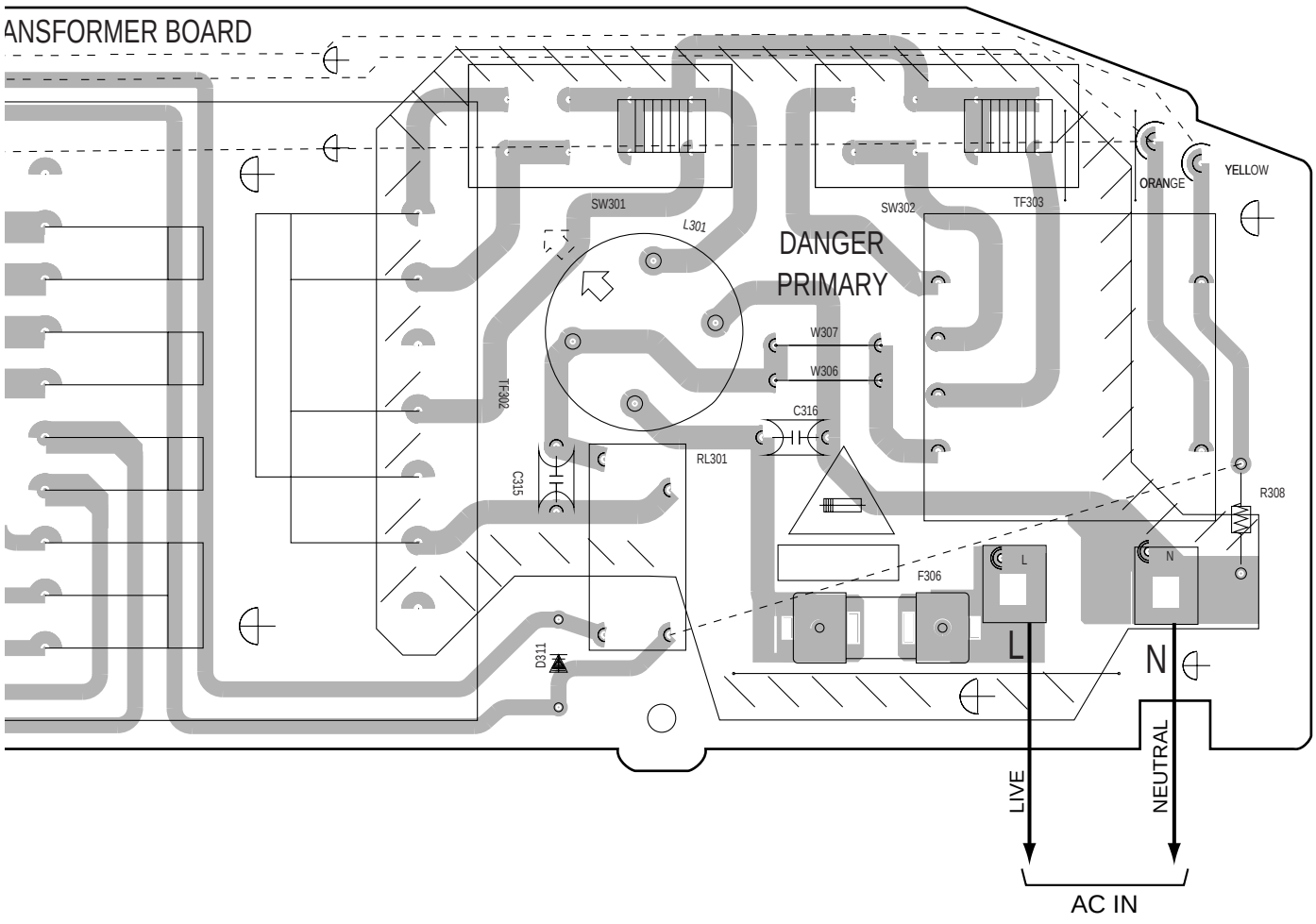
IC302

Q301

Q302

IC301
Q303 Q304

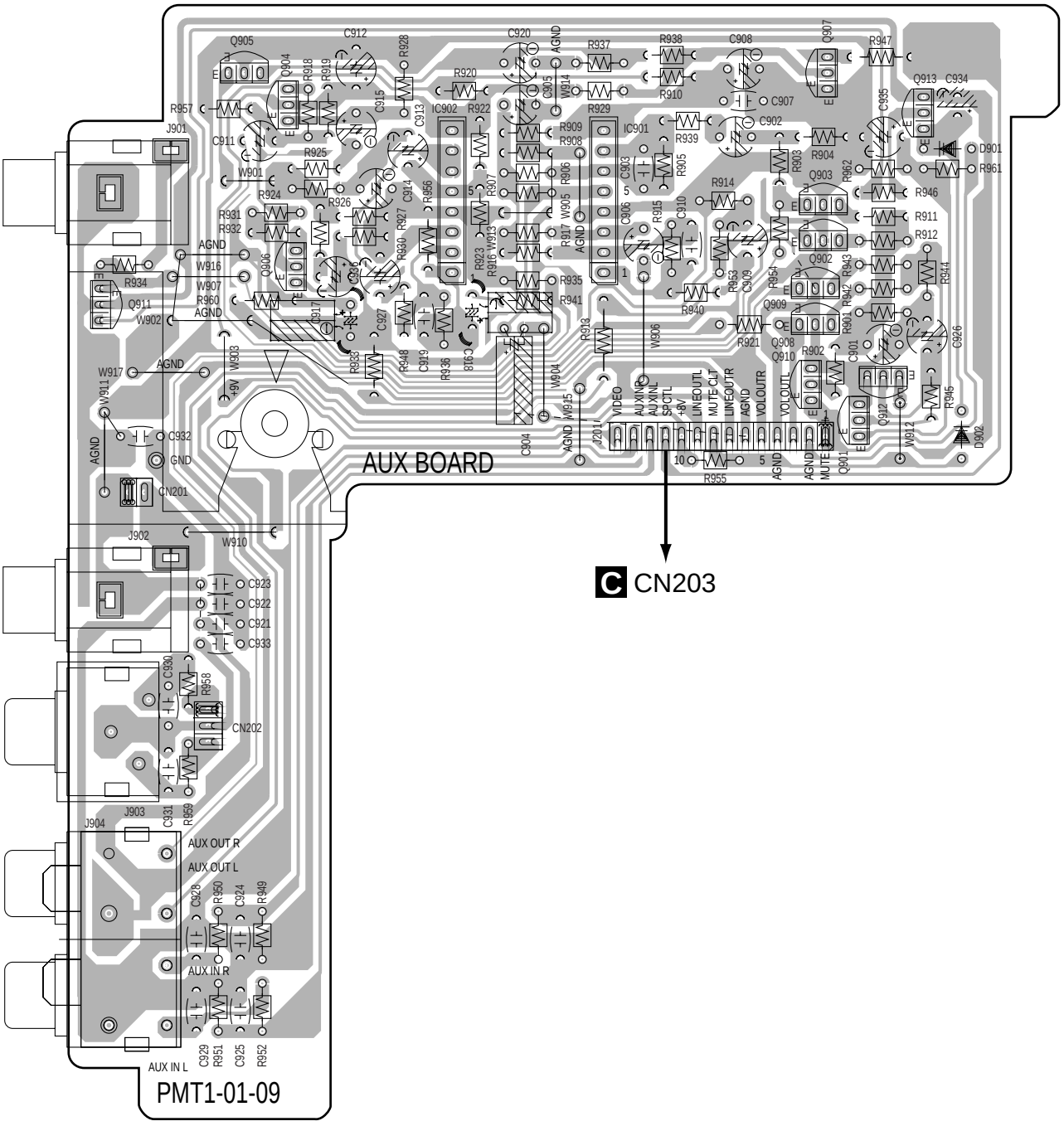
IC308
|
IC305
IC303
IC304


ANSFORMER BOARD
DANGER
PRIMARY
SW301
L301
SW302
TF303
YELLOW
ORANGE
W307
W306
C316
TF302
C315
RL301
R308
F306
L
N
D311
LIVE
NEUTRAL
AC IN

SIDE A

4.5 TERMINAL/JACK PCB ASSY

D TERMINAL/JACK PCB ASSY

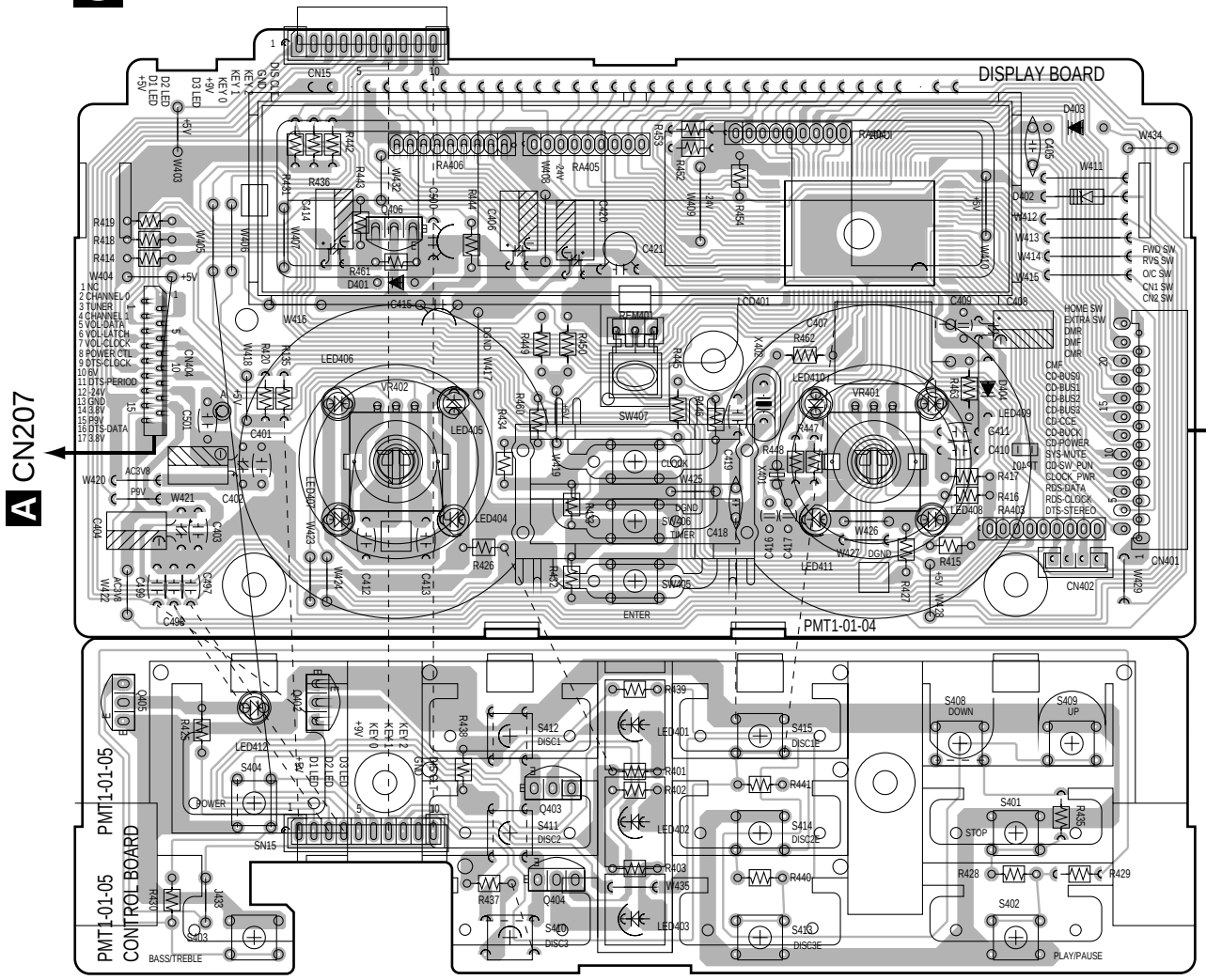


SIDE A

4.6 DISPLAY PCB ASSY

Q406 IC401

G DISPLAY PCB ASSY



SIDE A

5. PCB PARTS LIST

NOTES: ●*Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
●*The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing,be sure to use parts of identical designation.*
●*When ordering resistors,first convert resistance values into code form as shown in the following examples.*
Ex.1 When there are 2 effective digits (any digit apart from 0),such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).
560 Ω → 56×10^1 → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47×10^3 → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K
Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62k Ω → 562×10^1 → 5621 ..... RN1/4PC 5 6 2 1 F

■LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.					Remarks
		KUCXCN	MYXCN	NVXCN	DBDXCN	DLXCN/NC	
	TUNER PCB ASSY	TUN-PMT1E-UL	TUN-PMT1E-EU	TUN-PMT1E-EU	TUN-PMT1E-DL	TUN-PMT1E-DL	
	CD SERVO PCB ASSY	CD--PMT1E	CD--PMT1E	CD--PMT1E	CD--PMT1E	CD--PMT1E	
	AMP PCB ASSY	AUD-PMT1E	AUD-PMT1E	AUD-PMT1E	AUD-PMT1E	AUD-PMT1E	
	TERMINAL/JACK PCB ASSY	JK--PMT1E	JK--PMT1E	JK--PMT1E	JK--PMT1E	JK--PMT1E	
	POWER PCB ASSY	GEN-PMT1E-UL	GEN-PMT1E-GA	GEN-PMT1E-GA	GEN-PMT1E-DL	GEN-PMT1E-DL	
NSP	HP JACK PCB ASSY	•••••	•••••	•••••	•••••	•••••	
	DISPLAY PCB ASSY	DIP-PMT1E	DIP-PMT1E-E	DIP-PMT1E-E	DIP-PMT1E-DL	DIP-PMT1E-DL	

A TUNER PCBASSY

TUN-PMT1E-UL, TUN-PMT1E-EU and TUN-PMT1E-DL are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		TUN-PMT1E-UL, TUN-PMT1E-DL	TUN-PMT1E-EU	
	IC103	Not used	BU1923	
	Q111, Q118	Not used	008-618150-000A	
	DZ102	Not used	MTZJ5.1B	
	L106	Not used	018-010014-00A	
	C130	Not used	003-20280-050	
	C159	Not used	CEAT2R2M50	
	C160	Not used	CEAT101M10	
	C161, C162	Not used	CCCCH330J50	
	C163	Not used	CGCYX104K25	
	C176	Not used	CKCYB561K50	
	C178	Not used	003-20380-050	
	C179	Not used	CKCYF473Z50	
	R127	Not used	RD1/4PU474J	
	R160, R174	Not used	RD1/4PU222J	
	R161	Not used	RD1/4PU102J	
	R181	Not used	RD1/4PU334J	
	CX102 (4.332MHz)	Not used	009-604332-000A	
	CN102	118-040102-002A	118-030401-000A	
	JP	Not used	054-010A50-090J	

E POWER PCB ASSY

GEN-PMT1E-UL, GEN-PMT1E-GA and GEN-PMT1E-DL are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		GEN-PMT1E-UL GEN-PMT1E-GA	GEN-PMT1E-DL	
	SLIDE SW	Not used	025-230041-000A	

G DISPLAY PCB ASSY

DIP-PMT1E, DIP-PMT1E-E and DIP-PMT1E-DL are constructed the same except for the following :

Mark	Symbol and Description	Part No.			Remarks
		DIP-PMT1E	DIP-PMT1E-E	DIP-PMT1E-DL	
	LED WLEDS03304 GRN	Not used	110-033041-003A	Not used	
	R445	RD1/4PU473J	RD1/4PU473J	Not used	
	R446	RD1/4PU473J	Not used	RD1/4PU473J	

■ PCB PARTS LIST FOR XR-MT3/KUCXCN UNLESS OTHERWISE NOTED

A TUNER PCB ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
		IC101(ICREVA-AFM-IF-MPX LA1837L)	010-101837-000A
		IC102 (ICPLL TC9257P)	010-849257-001A
		Q102,Q105 (TRANSISTOR 2SC1417)	008-314170-008A
		Q113,Q115 (TRLPNPPWR 3CA8550)	008-685500-000A
		Q120 (TR DTA114YS)	008-801144-000A
		Q112,Q116,Q117	2SC1815
		Q101,Q107	2SK161
		D101-D104	1N4148
		VD101,VD103	KV1561A-2
		DZ103 (ZENER IN-5231B,HZ5C1)	011-010051-120A

COILS AND FILTERS

Mark	No.	Description	Part No.
		L102 (INDUCTOR 100μH)	018-010014-000A
⚠		L108 (BAD COIL #BA3534)	037-003534-100
		CF102,CF101 CERAMIC FILTER SFE10	019-000107-006A
		CF103 (CERAMIC FILTER LTU450G2)	019-000450-012A

CAPACITORS

Mark	No.	Description	Part No.
		C173,C174,C139,C103 (0.002μF)	003-020280-050
		C177,C128,C129,C140,C185,C116	003-020380-050
		C148,C150 (CERAMIC CAP 0.02μF)	003-020380-050
		C154,C152 (CERAMIC CAP 24pF)	003-024010-050
		C147 (CERAMIC CAP 0.04μF)	003-040380-050
		C288,C183,C184 (CERAMIC 50pF)	003-050010-050
		C135 (CERAMIC CAP 820pF/50V)	003-082110-050
		C123 (POLY CAP 350pF/50V)	005-035100-000A
		C113	CCCCH100D50
		C190	CCCCH101J50
		C101	CCCCH330J50
		C156	CEAT100M50
		C158	CEAT101M10
		C171,C136,C141,C142,C145,C172	CEAT1R0M50
		C131	CEAT220M25
		C146	CEAT221M10
		C125	CEAT330M16
		C126	CEAT3R3M50
		C127	CEAT470M16
		C167,C168,C165,C166	CEAT4R7M50
		C144,C137	CEATR47M50
		C133,C121	CGCYX104K25
		C119	CKCYB682K50
		C132,C111,C106-C109,C104,C180	CKCYF103Z50
		C186-C188,C101	CKCYF103Z50
		C169,C170	CQMBA273J50

RESISTORS

Mark	No.	Description	Part No.
		RA402 (RESISTOR NETWORK 10kΩ)	001-229103-000A
		Other Resistors	RD1/4PU□□□J

OTHERS

Mark	No.	Description	Part No.
	TC101	TRIMMER CAP CVN610-3	007-200610-000A
	T107,T108	IFT PF120C 10mm	012-000120-010A
	T105	IFT 4A-224R,10mm	012-002240-010A
	T103	IFT 1A612R,10mm	012-006120-010A
	T101	IFT 1A784R MW RF,10mm	012-007840-010A
	T106	IFT FM DET 600TEAS	012-7NF803-007A
	FE101	TUNER-FN&&&00STATION	042-104511-000A
	P101	JP WIRE AWG26 110mm	051-675110-009J
		SHIELD WIRE SINGLE	053-103077-015J
	CN101,CN102	EXT SP JACK	118-040102-002A

Mark	No.	Description	Part No.
	CN206	FFC CONN SOCKET 16P	135-006116-160J
	CN8	FFC CONN 6232 30PINS	135-006232-300J
	CN205	FFC CONN SOCKET 24P	135-FEBTVK-240J
	CN207	FFC CONN SOCKET 17P	135-TOCB17-171J
	CN13	HSG PMT1-3A PEC 2001H	136-03PMT1-B00J
	CN11	HSG PMT1-14A PEC 2001H	136-14PMT1-B00J
	CX101	CRYSTAL RESONATOR (7.2MHz)	009-607200-000A

B CD SERVO PCB ASSY

SEMICONDUCTORS

	IC2 (TA2065F)	010-832065-000A
	IC3 (IC MOTOR DRIVER TA2092)	010-832092-000A
	IC1 (TC9284BF)	010-849284-000A
	IC4	BA4558N-HT
	IC5,IC6	TA7291S
	Q2 (TRLNPNPWR 3DA8050)	008-680500-000A
	Q1 (TRLPNPPWR 3CA8550)	008-685500-000A
	Q5	2SB562
	Q6	2SC1815
	D1-D3	1N4148

COILS

	L1 (INDUCTOR 100µH)	018-010014-000A
⚠	L2 (BAD COIL #BA3534)	037-003534-100

CAPACITORS

	C13,C19,C43 (CHIP CAP 24pF/50V)	003-624052-050A
	C18	CCSRCH101J50
	C57,C58	CCSRCH121J50
	C52,C52,C59,C60	CCSRCH221J50
	C15	CCSRCH270J50
	C8	CCSRCH4R0C50
	C37,C68,C12,C20	CEAT100M50
	C34,C38,C40,C45,C61,C62,C54	CEAT101M10
	C65	CEAT101M10
	C42	CEAT102M10
	C9	CEAT1R0M50
	C27	CEAT220M25
	C46,C48	CEAT221M10
	C16,C31,C29	CEAT470M16
	C72	CEAT471M10
	C56,C55	CEAT4R7M50
	C51	CEJQ101M10
	C75	CEJQ470M16
	C41,C4,C35,C22,C36	CGCYX104M16
	C73,C47	CKCYF103Z50
	C10,C11,C33,C74	CKSRYB103K50
	C23,C24,C28,C64,C66,C69	CKSRYB104K16
	C44	CKSRYB153K50
	C26	CKSRYB223K50
	C7,C6	CKSRYB332K50
	C1	CKSRYB471K50
	C21	CKSRYB472K50
	C17,C30,C32,C3	CKSRYB473K16
	C2	CKSRYB563K16
	C14	CKSRYB682K50
	C25	CKSRYF333Z50

Mark	No.	Description	Part No.

RESISTORS

	R34	RD1/4PM100J
	R41	RD1/4PU101J
	FEO,TEB,TEO (100kW)	002-104085-102A
	Other Resistors	RS1/16S□□□J

OTHERS

	21 ZENER IN-5232B 5.6V	011-010056-120A
	FEB SEMI-FIXED	002-472065-000A
	CN6 FFC CONN 6232 30P	135-006232-301J
	CN3 FFC CONN SOCKET 16P	135-TOCA16-160A
	CN1 HSG 5CD1-4B JST	136-045CD1-201J
	CN5 HSG PMT1-4A JST	136-04PMT1-250J
	CN4 HSG 2CD9-6C (REV)	136-067238-205J
	CN2 HSG PMT1-8A JST	136-08PMT1-250J
	SOLDERING PIN	137-300000-002J
	X1 CERAMIC RESONATOR (16.93MHz)	020-001693-000A

C AMP PCB ASSY

SEMICONDUCTORS

⚠	IC251 (STK4142MKIIA)	010-554142-000A
	IC202	BH3854FS
	IC201	BU4052BC
	Q255	008-680500-000A
	Q257	008-801144-000A
	Q251	2SA1015
	Q201,Q252,Q253,Q256,Q262,Q264	2SC1815
	Q258–Q261	2SD1468S
	Q263,Q265	DTC114ES
	D253,D255	011-024001-000A
	D202,D203,D252,D252,D254,D256	1N4148
	D257	1N4148
	D201	MTZJ4.7B
	D204-D206	MTZJ5.1B
⚠	D209	MTZJ9.1B

COILS

	L251,L253 (INDUCTOR 10µH)	018-010016-202A

RELAY

	RL291	RELAY 12V	128-122125-000A

CAPACITORS

	C276,C277 (0.001µF)	004-010210-100
	C271,C264 (MYLAR CAP 0.027µF)	004-027350-100
	C257,C258	CCCSL150J50
	C215	CEAT100M50
	C226	CEAT101M10
	C255,C256,C265,C266	CEAT101M25
	C259	CEAT101M35
	C213,C227	CEAT1R0M50
	C214,C221,C228,C279	CEAT220M25
	C203	CEAT221M16
	C251,C253,C272	CEAT2R2M50
	C261,C262	CEAT332M35
	C216	CEAT3R3M50
	C260	CEAT470M35
	C212,C235	CEAT471M16

Mark	No.	Description	Part No.
	C204,C210,C211,C216,C225,C233		CEAT4R7M50
	C206,R204,R205		CEAT4R7M50
	C220		CEATR22M50
	C236,C237,C229		CGCYX104K25
	C207,C209,C222-C224,C263,C280		CKCYB101K50
	C252,C254		CKCYB471K50
	C219,C232		CQMBA103J50
	C267-C270		CQMBA104J50
	C234		CQMBA223J50
	C217,C218,C230,C231		CQMBA683J50

RESISTORS

R295,R296		RD1/2LMF101J
R265,R266		RD1/2LMF331J
R278,R279		RD1/2LMF4R7J
R212		RD1/4PU1R0J
R272,R281		RS1LMFR22J
Other Resistors		RD1/4PM□□□J

OTHERS

CN206	PUSH TERMINAL	118-000134-001A
CN204	HEADER 4 PINS	135-005267-090J
CN202	FFC CONN SOCKET 16P	135-006116-160J
CN201	HEADER CTL 3 PINS	135-PHS030-030J
CN208	HSG CD189D-3A	136-03189D-200J
P3,P4	ROUND PIN	137-500001-000J

D TERMINAL/JACK PCB ASSY

SEMICONDUCTORS

IC901,IC902		BA4558N-HT
Q901,Q910,Q912,Q913	(TR DTA114YS)	008-801144-000A
Q904,Q906,Q907		2SC1815
Q902,Q903,Q905,Q908,Q909,Q911		2SD1468S
D901,D902		1N4148

CAPACITORS

C907 (CERAMIC CAP 0.02µF)		003-020380-050
C903,C910,C924,C925,C928,C929		CCCCH101J50
C908,C905		CEAT101M10
C902,C909		CEAT1R0M50
C935		CEAT220M25
C912		CEAT221M10
C927		CEAT2R2M50
C906,C904,C911,C913,C915-C918		CEAT4R7M50
C934		CEAT4R7M50
C914		CEATR22M50
C919		CGCYX104K25
C921-C923		CKCYF102Z50

RESISTORS

All Resistors		RD1/4PU□□□J

OTHERS

J201	CONN PIN 14 PINS	050-140060-200J
GND	JP WIRE AWG22 140MM	051-275140-009J
J904	RCA JACK HSP-244V-01	118-000244-000A
J901	RCA JACK HTJ-032-09B	118-020032-003A

Mark	No.	Description	Part No.

E POWER PCB ASSY

SEMICONDUCTORS

⚠	IC306–IC308	(MICRO FUSE 251001 1A)	124-010010-002A
⚠	IC303,IC304	(MICRO FUSE #25103.5-TS2 3.5A)	124-035010-000A
	D311		011-024001-000A
⚠	IC301 (IC REGULA BA09ST)		010-400009-001A
⚠	IC302		NJM78M56FA
⚠	Q302,Q303 (TRLPNPPWR 3CA8550)		008-685500-000A
	Q301		2SC1815
	Q304		DTC114ES
	D305 (ZENER IN-5237B,8.2V)		011-010082-120A
	D308 (ZENER BZX55C24 24V)		011-010240-120A
⚠	D312 (BRIDGE RECTIFIER RS602)		011-020602-001A
	D306,D307,D309-D311,D313	(RECTIFIER IN-4001B)	011-024001-000A
⚠	D301-D304 (RECTIFIER IN-5401BL)		011-025401-000A

RELAY

⚠	RL301	RELAY 9 OSA-SS-212DM	128-090109-000A

COIL

⚠	L301	AC LINE FILTER	019-500160-000A

CAPACITORS

⚠	C316,C319 (CERAMIC CAP 0.01µF)		003-010320-250A
⚠	C313 (MYLAR CAP 0.01µF/100V)		004-010310-100
	C310,C307		CEAT101M35
	C318		CEAT102M16
	C317,C301		CEAT221M16
	C302		CEAT472M16
	C320		CEAT4R7M50
⚠	C303–C306,C308,C309,C319		CKCYF103Z50

RESISTORS

⚠	R308		RD1/2PM475J
	R304		RD1/2PMF221J
	Other Resistors		RD1/4PU□□□J

OTHERS

	SN302	CONN PIN 12 PINS	050-120060-251J
		JP WIRE AWG22#UL1672	051-265160-003J
		JP WIRE AWG22 YELLOW	051-275180-010J
		AC CONTACT TERMINAL	137-400001-000J
	F306	FUSE HOLDER 7900	550-790000-000J
	P301	JP WIRE AWB22#1007	051-275120-009J
⚠		HEAT SINK	613PMT131000
⚠	SCREW		BBZ30P060FMC
	SCREW		BBZ30P140FMC
	CN301	HEADER 14 PINS	135-2001WS-140J
	SN204	HSG PMT1-9A	136-09PMT1-C00J

Mark	No.	Description	Part No.

F HP JACK PCB ASSY

SEMICONDUCTOR

	D105		1SS133

COIL

	L107		LAU100J

CAPACITORS

	C287		CGCYX104M16
	C280,C281		CKCYF103Z50

OTHERS

	P201	JP WIRE AWG26 80MM	051-675080-009J
	HP201	HEADPHONE JACK	116-008020-000
	CN204	HEADER MOLEX 9 PINS	135-2001WR-040J

G DISPLAY PCB ASSY

SEMICONDUCTORS

	IC401		LC87F65C8A-QIP
	Q406		2SC1815
	Q402-Q405		DTC114ES
	D401		1N4148
	LED404-LED411	LED-Y-3MM	110-033045-013A
	LED412	LED-R-3MM	110-033040-013A
	LED401-LED403	LED-Y-3MM	110-033045-013A

SWITCHES

	SW401-SW404,SW408-SW415 (F021-KHH902-001) TACT SW		021-114165-000A
	SW405-SW407 (F021-KHH902-001)TACT SW		021-114165-000A

CAPACITORS

	C416,C417		CCCCH220J50
	C420,C428		CEAT100M50
	C419,C418(CERAMIC CAP 30pF/50V)		003-430050-050
	C407 (ELECT CAP 47000MFD/5.5V)		006-747300-05CA
	C402,C404		CEAT1R0M50
	C414		CEAT220M25
	C405,C495		CGCYX104K25
	C401,C403,C497-C499,C409-C413		CKCYF103Z50
	C421,C415,C500		CKCYF103Z50

RESISTORS

	RA404-RA406 RESISTOR NETWORK100K		001-220104-000A
	RA403	RESISTOR NETWORK EXB	001-229103-000A
	VR401,VR402		030-H12203-204A
	Other Resistors		RD1/4PU□□□J

OTHERS

	CN15		050-100050-201J
		JP WIRE AWB22#1007	051-275120-009J
	REM401	REMOTE/CONTROL PHOTO	111-000638-000A
	LCD401	VACUUM FLUORESCENT	115-000920-000A
	CN401	FFC CONN SOCKET 24P	135-FESTVK-240J
	CN404	FFC CONN SOCKET 17P	135-TOCB17-171J
	X401	CRYSTAL RESONATOR (32.768kHz)	009-332768-100A
	X402	CERAMIC RESONATOR (8MHz)	020-000800-000A

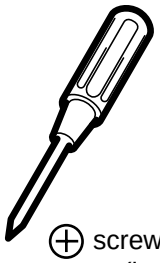
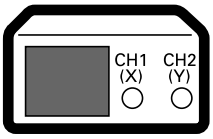
6. ADJUSTMENT

6.1 CD SECTION

CD ASSY is taken out according to the procedure of DISASSEMBLY. And, please adjust the part CD after connecting connectors.

6.1.1 PREPARATIONS

(1) Jigs and Measuring Instruments

CD TEST DISC (YEDS-7)	⊖ Precise screwdriver	⊖ screwdriver (small)	⊕ screwdriver (medium)
 ⊕ screwdriver (large)	 Dual-trace oscilloscope (10 : 1 probe)		

(2) Necessary Adjustment Points

When	Adjustment Points
Exchange PICKUP	1, 2, 3, 4 → Pages 39 and 40
Exchange CD ASSY	1, 2, 3, 4 → Pages 39 and 40
Exchange SERVO MECH ASSY	1, 2, 3, 4 → Pages 39 and 40

6.1.2 Adjustment

(1) Adjustment Locations

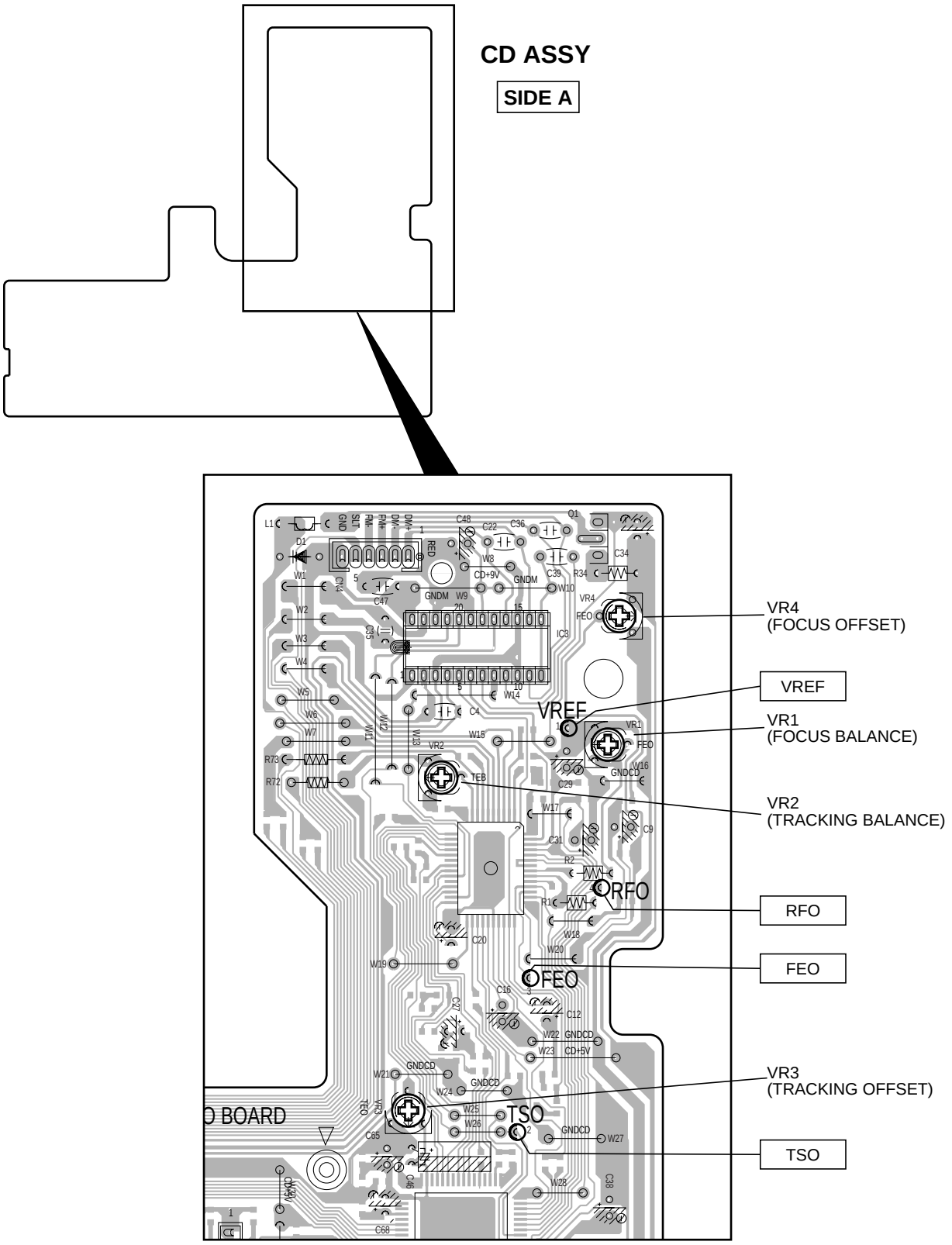
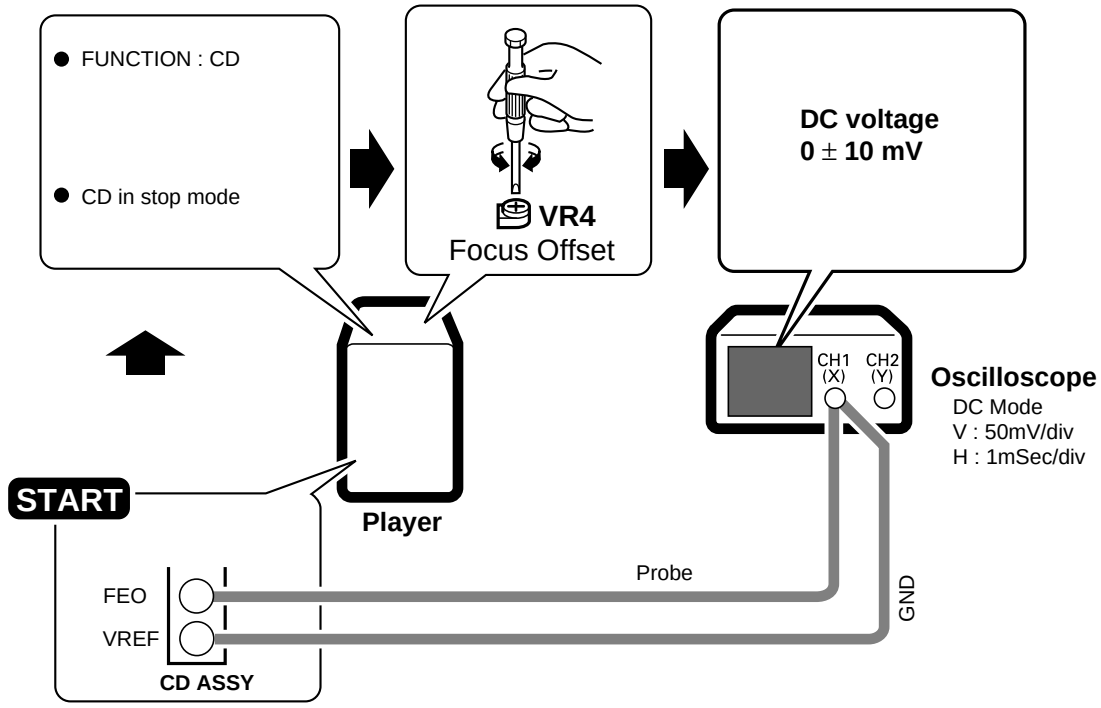


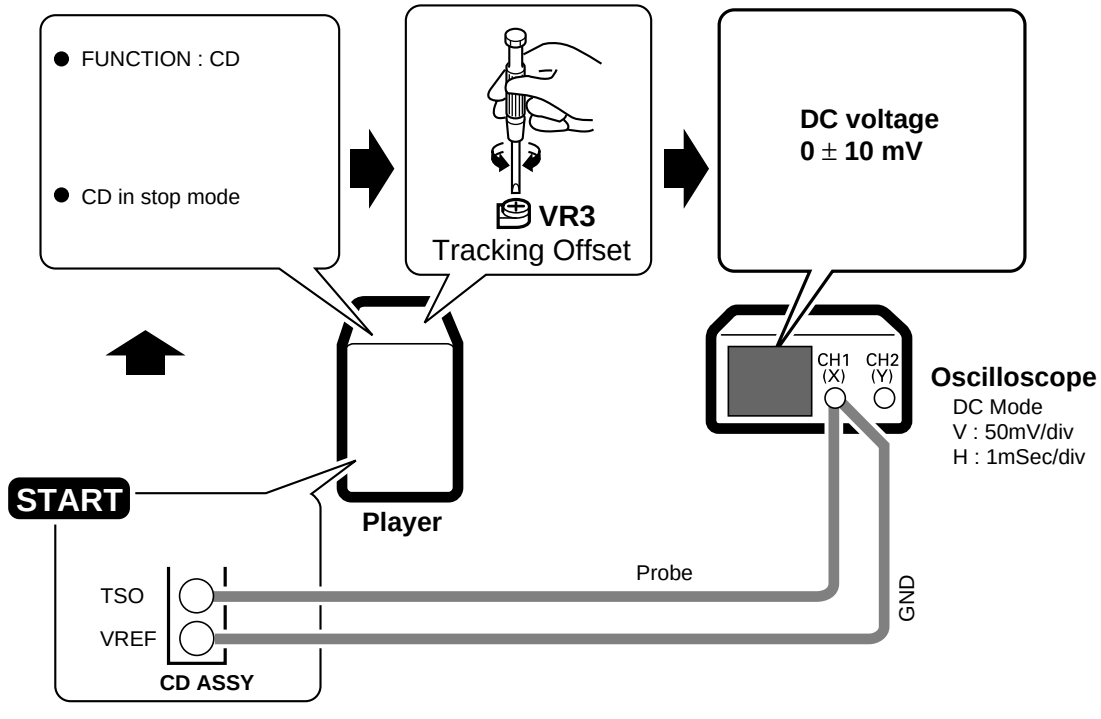
Fig. 1 Adjustment Locations

(2) Check and Adjustment

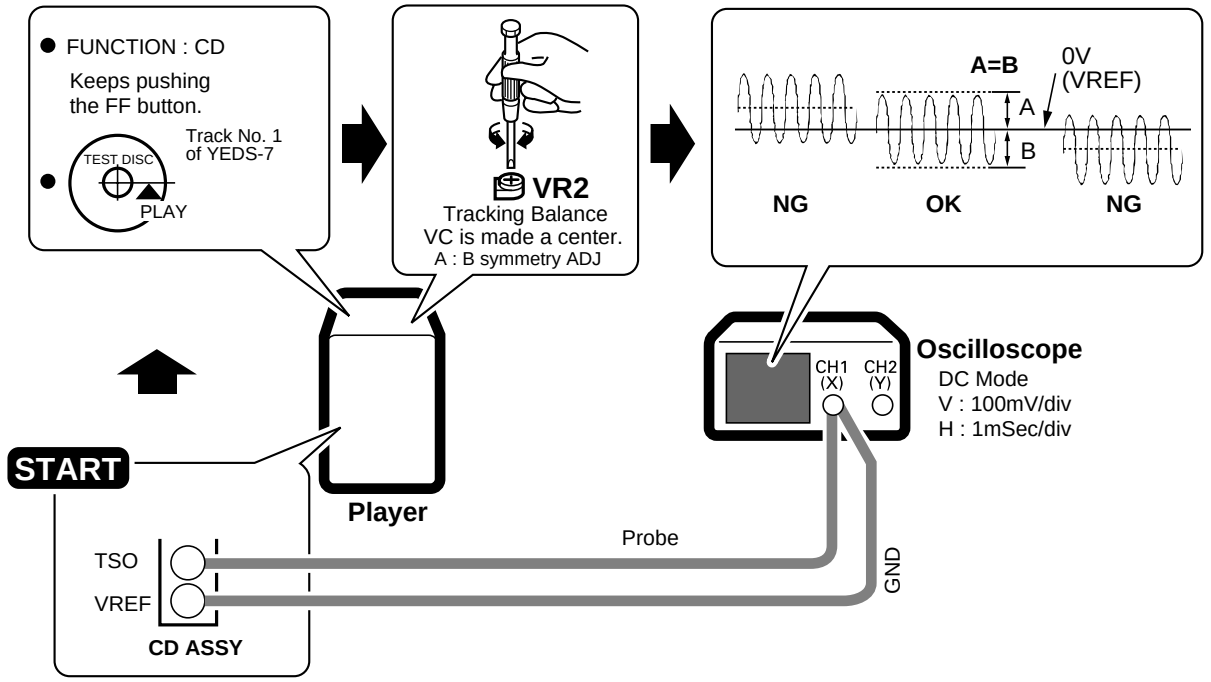
1. Focus Offset (FEO) Adjustment



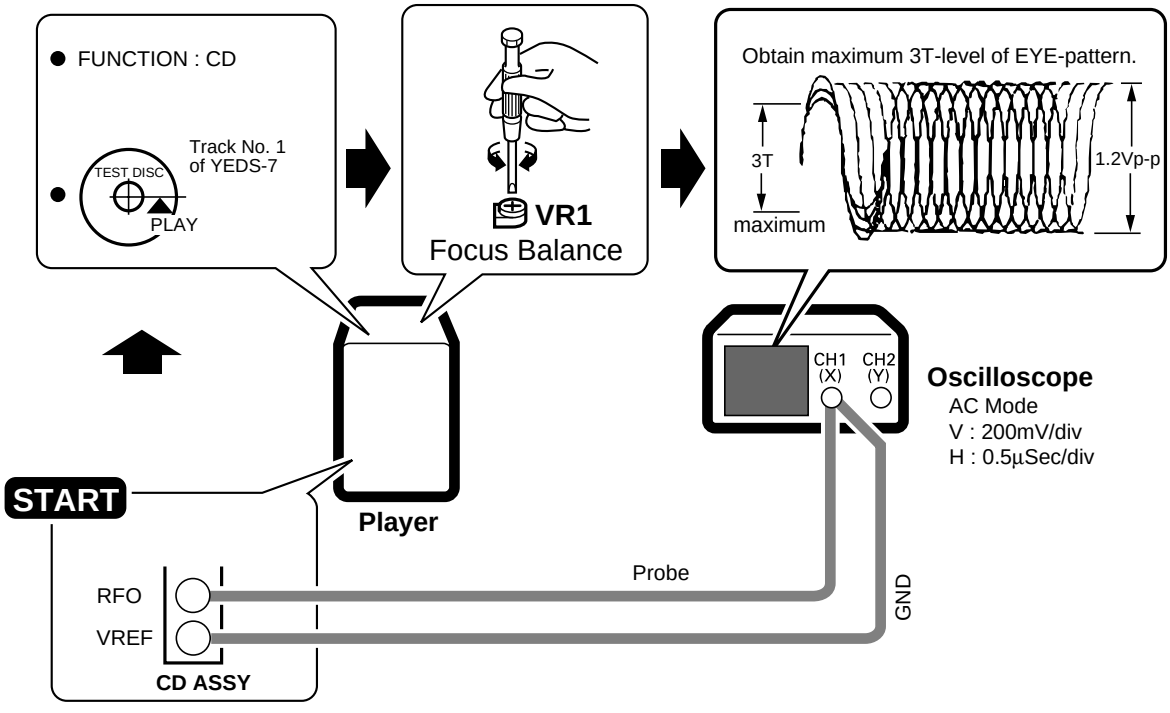
2. Tracking Offset (TEO) Adjustment



3. Tracking Balance (TEB) Adjustment



4. Focus Balance (FEB) / eye pattern (RF level) Adjustment

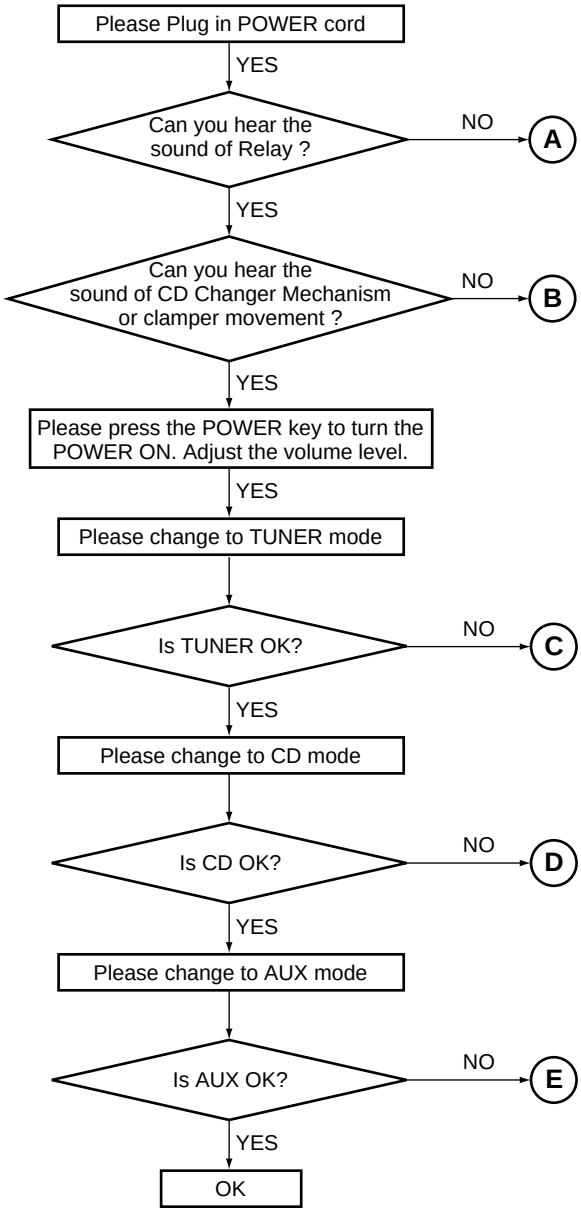


7.1 GENERAL INFORMATION

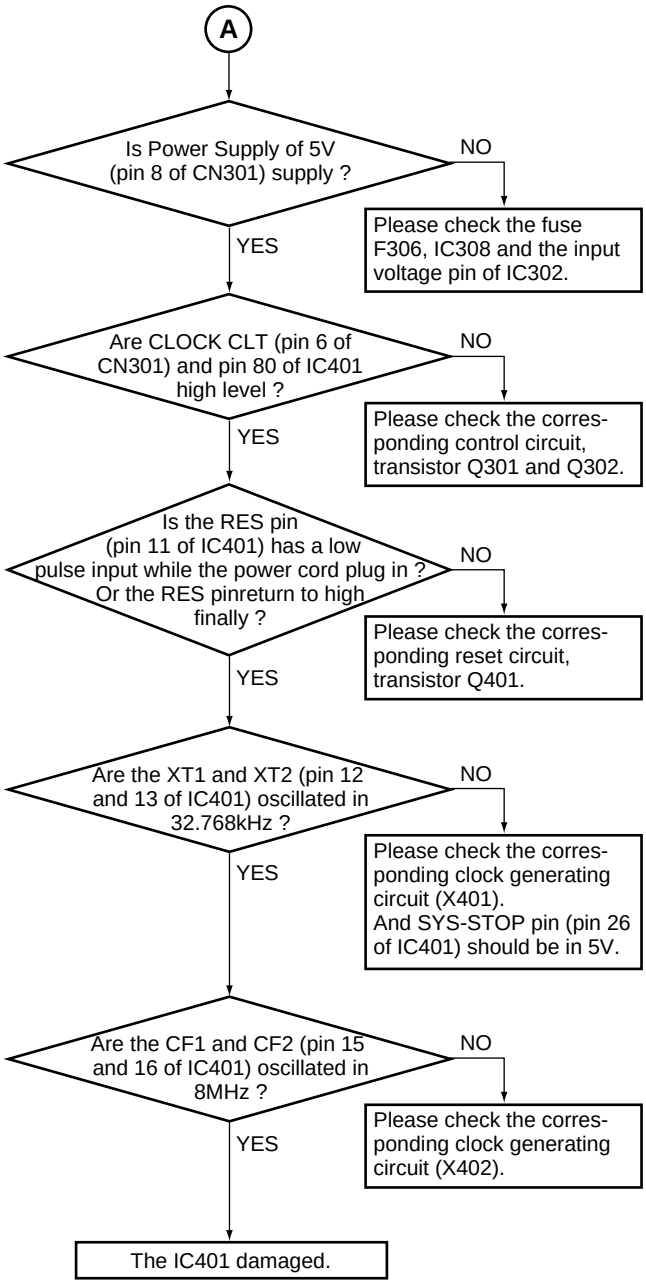
7.1 DIAGNOSIS

7.1.1 TROUBLE SHOOTING

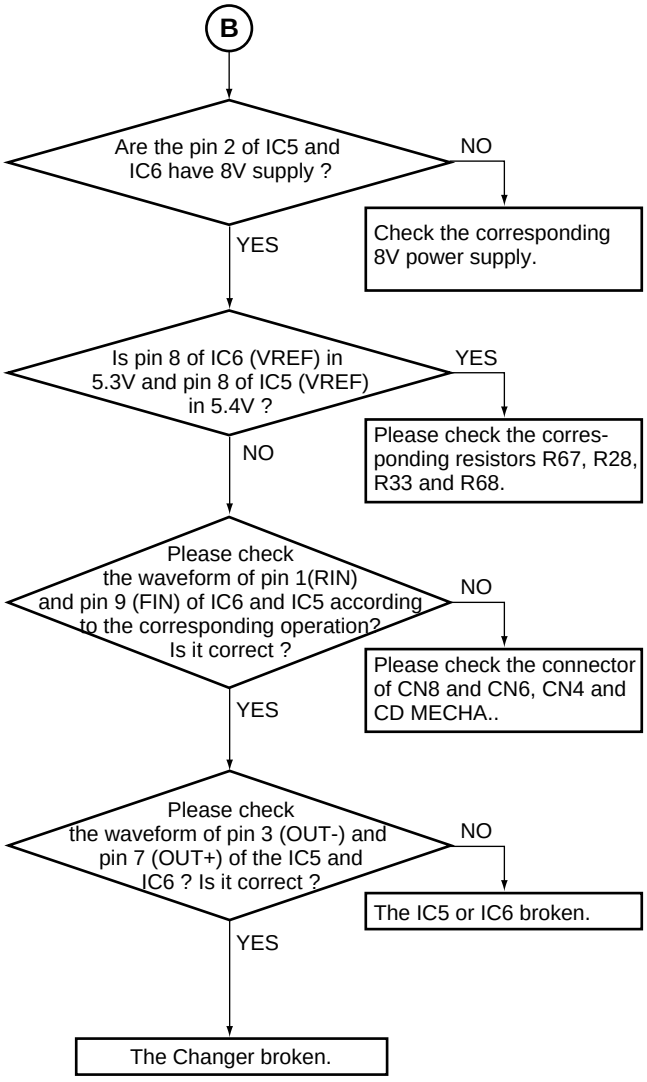
1. Troubleshooting



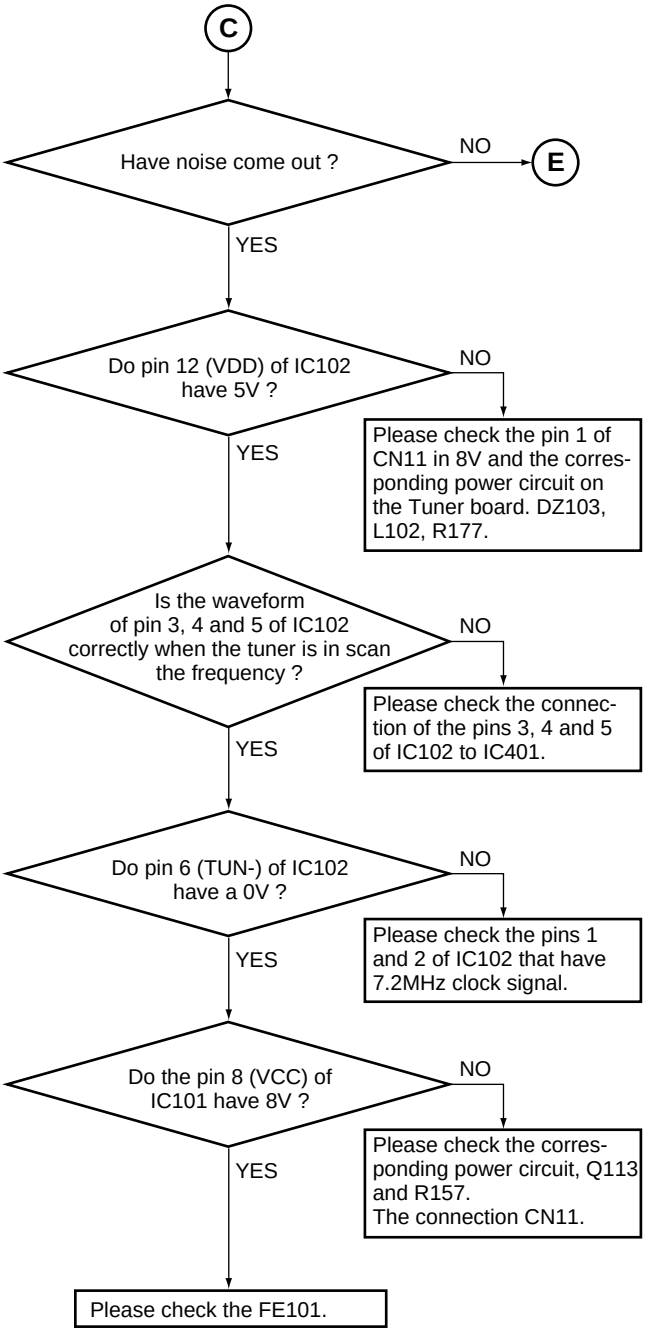
2. Cannot hear the sound of relay when power cord plug in


A
Is Power Supply of 5V (pin 8 of CN301) supply ?
NO
Please check the fuse F306, IC308 and the input voltage pin of IC302.
YES
Are CLOCK CLT (pin 6 of CN301) and pin 80 of IC401 high level ?
NO
Please check the corres-ponding control circuit, transistor Q301 and Q302.
YES
Is the RES pin (pin 11 of IC401) has a low pulse input while the power cord plug in ? Or the RES pinreturn to high finally ?
NO
Please check the corres-ponding reset circuit, transistor Q401.
YES
Are the XT1 and XT2 (pin 12 and 13 of IC401) oscillated in 32.768kHz ?
NO
Please check the corres-ponding clock generating circuit (X401). And SYS-STOP pin (pin 26 of IC401) should be in 5V.
YES
Are the CF1 and CF2 (pin 15 and 16 of IC401) oscillated in 8MHz ?
NO
Please check the corres-ponding clock generating circuit (X402).
YES
The IC401 damaged.

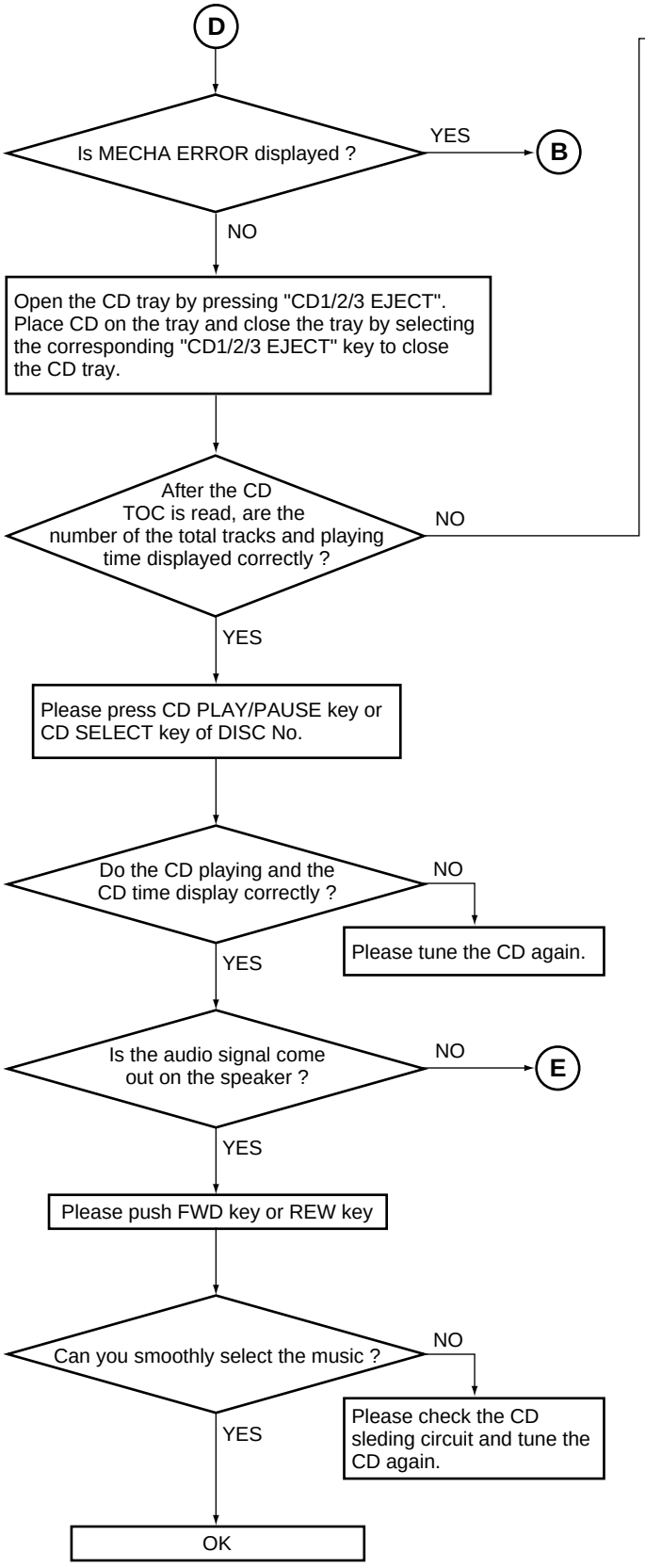
3. Can you hear the sound of CD Changer Mechanism or clamper movement when power cord plug in


B
Are the pin 2 of IC5 and IC6 have 8V supply ?
NO
Check the corresponding 8V power supply.
YES
Is pin 8 of IC6 (VREF) in 5.3V and pin 8 of IC5 (VREF) in 5.4V ?
YES
Please check the corresponding resistors R67, R28, R33 and R68.
NO
Please check the waveform of pin 1(RIN) and pin 9 (FIN) of IC6 and IC5 according to the corresponding operation? Is it correct ?
NO
Please check the connector of CN8 and CN6, CN4 and CD MECHA..
YES
Please check the waveform of pin 3 (OUT-) and pin 7 (OUT+) of the IC5 and IC6 ? Is it correct ?
NO
The IC5 or IC6 broken.
YES
The Changer broken.

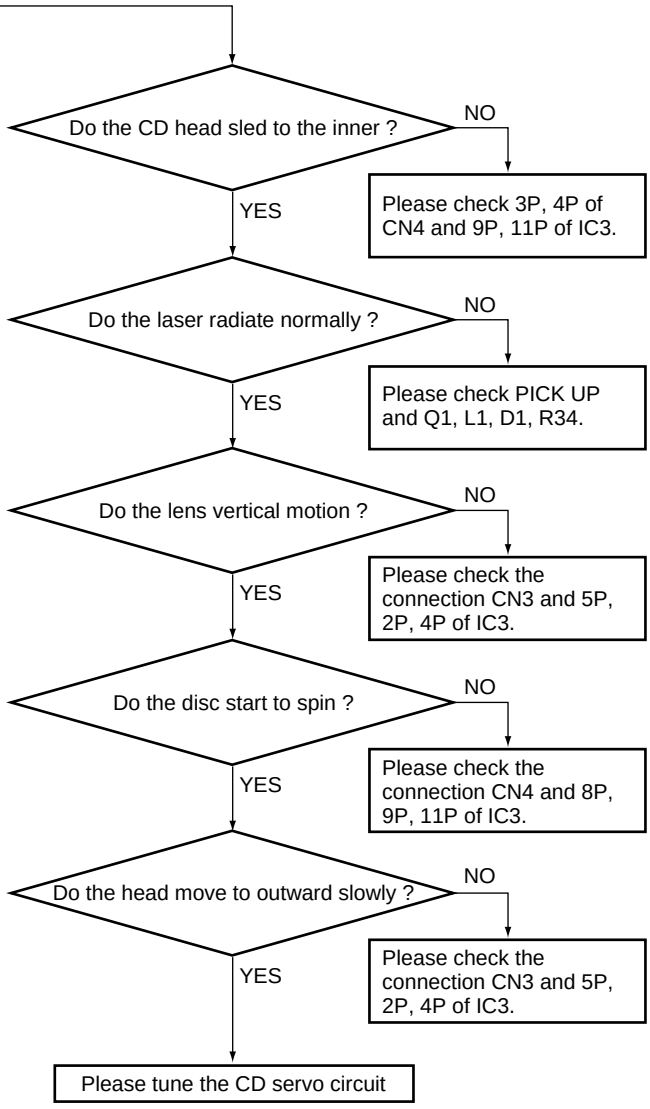
4. Tuner troubleshooting


C
Have noise come out ?
NO
E
YES
Do pin 12 (VDD) of IC102 have 5V ?
NO
Please check the pin 1 of CN11 in 8V and the corresponding power circuit on the Tuner board. DZ103, L102, R177.
YES
Is the waveform of pin 3, 4 and 5 of IC102 correctly when the tuner is in scan the frequency ?
NO
Please check the connection of the pins 3, 4 and 5 of IC102 to IC401.
YES
Do pin 6 (TUN-) of IC102 have a 0V ?
NO
Please check the pins 1 and 2 of IC102 that have 7.2MHz clock signal.
YES
Do the pin 8 (VCC) of IC101 have 8V ?
NO
Please check the corresponding power circuit, Q113 and R157.
The connection CN11.
YES
Please check the FE101.

5. CD troubleshooting


D
Is MECHA ERROR displayed ?
YES
B
NO
Open the CD tray by pressing "CD1/2/3 EJECT". Place CD on the tray and close the tray by selecting the corresponding "CD1/2/3 EJECT" key to close the CD tray.
After the CD TOC is read, are the number of the total tracks and playing time displayed correctly ?
NO
YES
Please press CD PLAY/PAUSE key or CD SELECT key of DISC No.
Do the CD playing and the CD time display correctly ?
NO
Please tune the CD again.
YES
Is the audio signal come out on the speaker ?
NO
E
YES
Please push FWD key or REW key
Can you smoothly select the music ?
NO
Please check the CD sleding circuit and tune the CD again.
YES
OK

• The total track number is incorrectly displayed


Do the CD head sled to the inner ?
NO
Please check 3P, 4P of CN4 and 9P, 11P of IC3.
YES
Do the laser radiate normally ?
NO
Please check PICK UP and Q1, L1, D1, R34.
YES
Do the lens vertical motion ?
NO
Please check the connection CN3 and 5P, 2P, 4P of IC3.
YES
Do the disc start to spin ?
NO
Please check the connection CN4 and 8P, 9P, 11P of IC3.
YES
Do the head move to outward slowly ?
NO
Please check the connection CN3 and 5P, 2P, 4P of IC3.
YES
Please tune the CD servo circuit

6. No audio signal come out on speaker

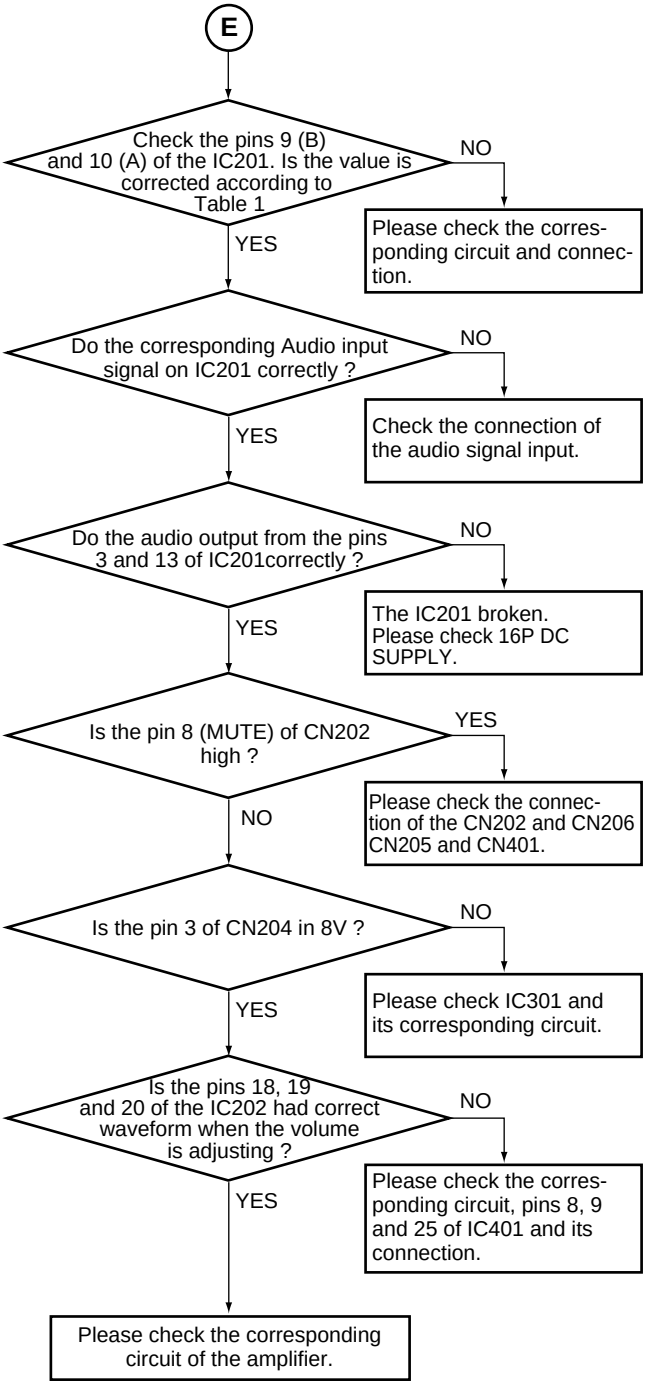
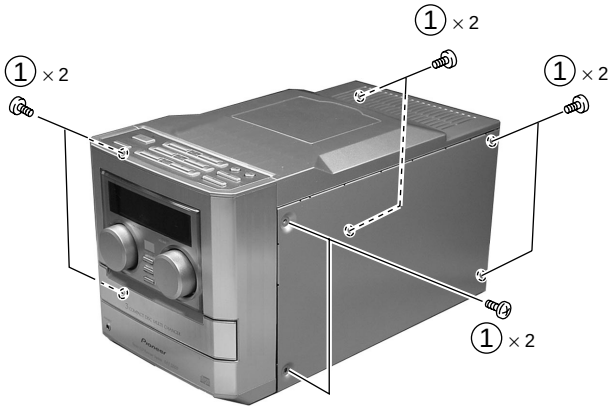

E
Check the pins 9 (B) and 10 (A) of the IC201. Is the value is corrected according to Table 1
NO
Please check the corresponding circuit and connection.
YES
Do the corresponding Audio input signal on IC201 correctly ?
NO
Check the connection of the audio signal input.
YES
Do the audio output from the pins 3 and 13 of IC201correctly ?
NO
The IC201 broken. Please check 16P DC SUPPLY.
YES
Is the pin 8 (MUTE) of CN202 high ?
YES
Please check the connection of the CN202 and CN206 CN205 and CN401.
NO
Is the pin 3 of CN204 in 8V ?
NO
Please check IC301 and its corresponding circuit.
YES
Is the pins 18, 19 and 20 of the IC202 had correct waveform when the volume is adjusting ?
NO
Please check the corresponding circuit, pins 8, 9 and 25 of IC401 and its connection.
YES
Please check the corresponding circuit of the amplifier.

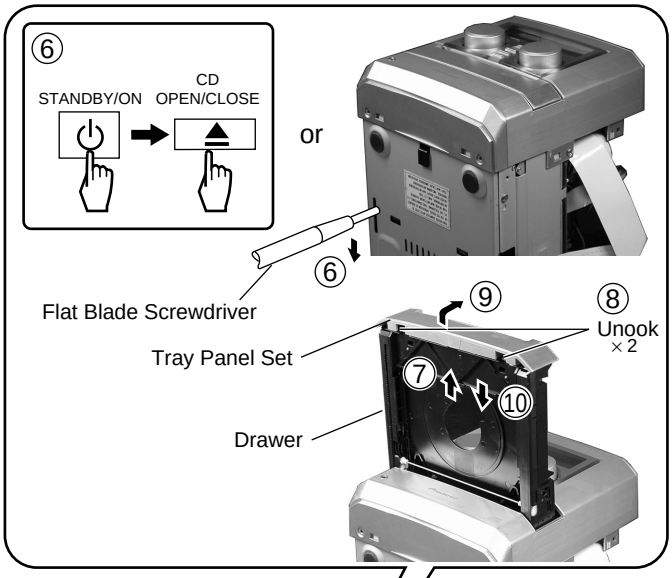
Table 1

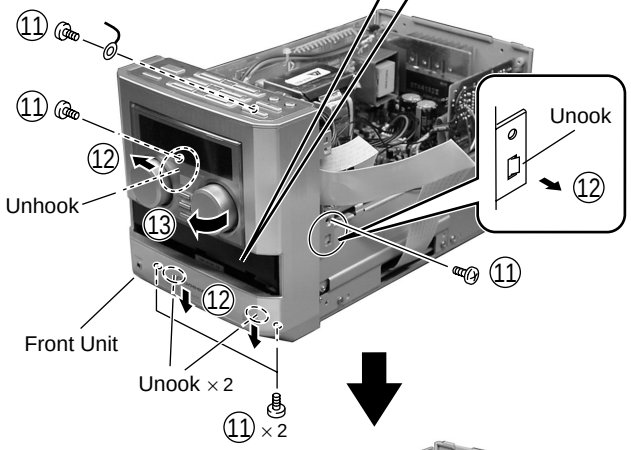
Channel	(B) Pin 9 of IC201	(A) Pin 10 of IC201
Power OFF	0	0
Tuner	0	1
CD	1	0
AUX	1	1

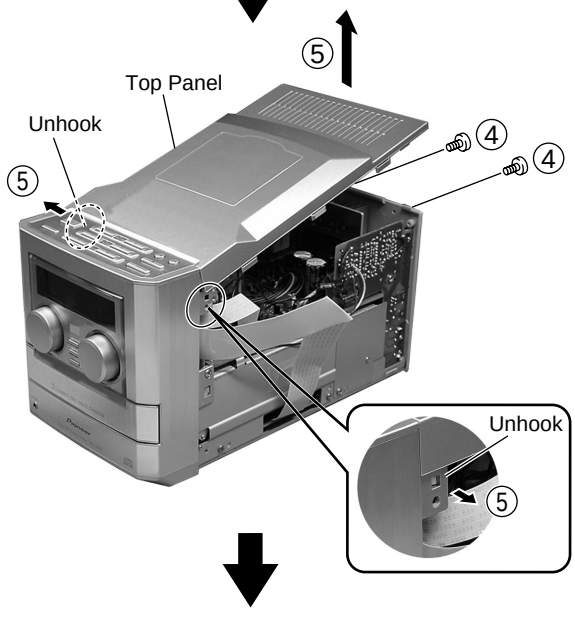
7.1.2 DISASSEMBLY/ASSEMBLY

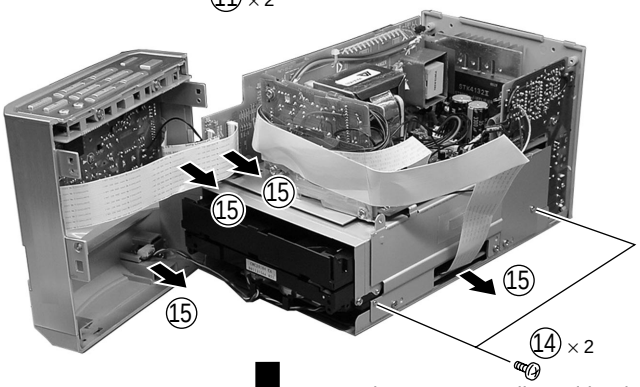
(1) Main Body Section

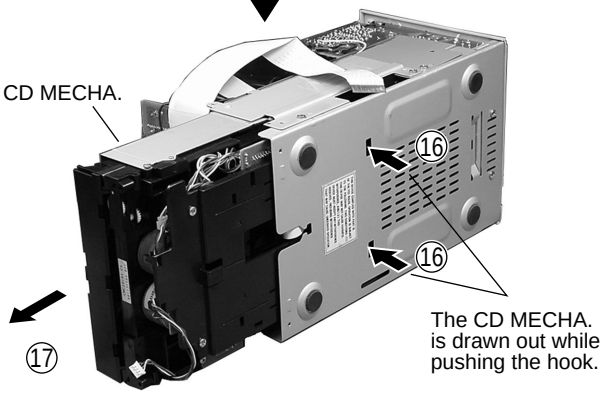










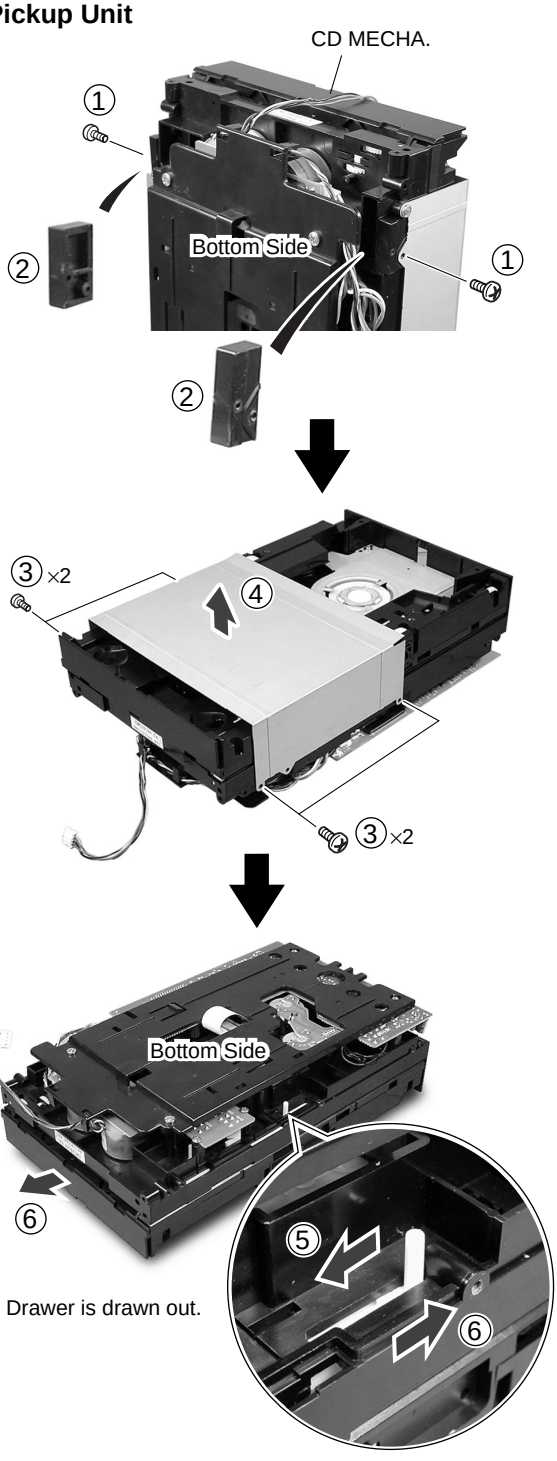


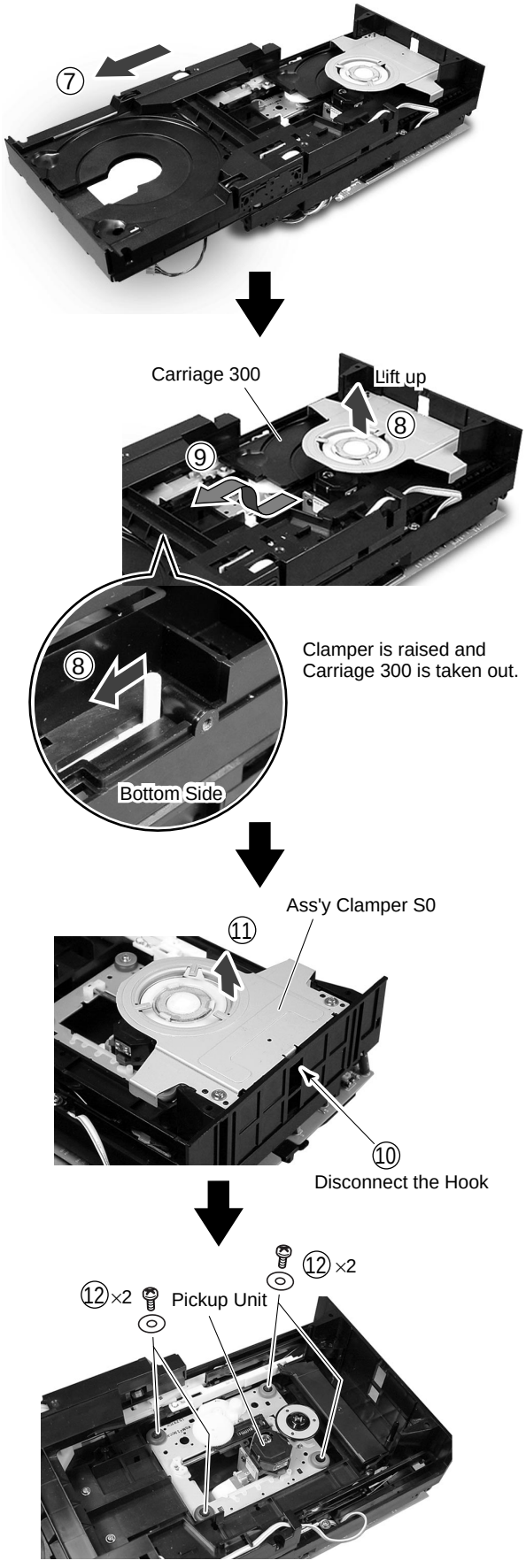
(2) CD MECHA.

CAUTION

- If Tray Panel Set is not detached when the CD MECHA. is repaired, the CD MECHA. cannot be removed from the main body of the product.
  When Drawer was not able not to open and shut by some something wrong's (The power supply does not enter, etc.) occurring, and remove Tray Panel Set, Slider 2 of the CD MECHA. is moved from the ditch of the chassis on the bottom side of the product with a minus driver and Drawer is drawn out. Afterwards, please remove Front Unit after removing Tray Panel Set .

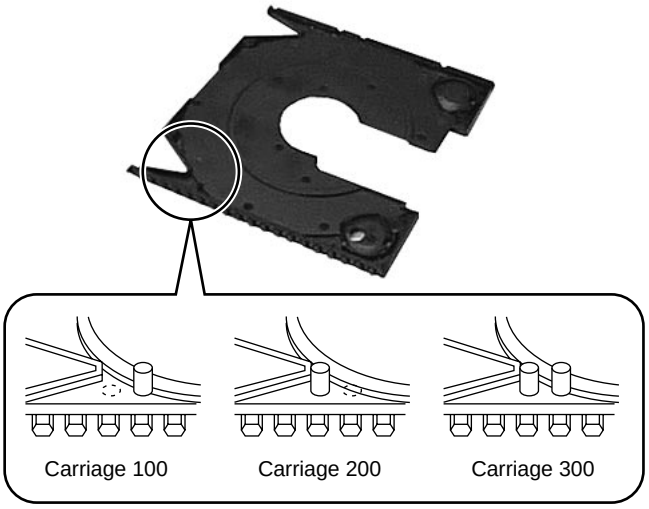
■ Pickup Unit



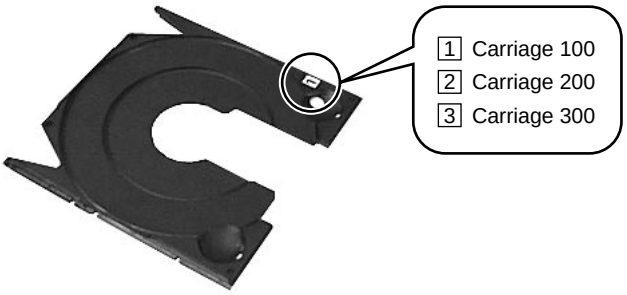


■ Caution for Disassembly/Assembly of CD MECHA.

1. As for the distinction method of Carriage100, 200, and 300, Switch distinguishes the shape of the projection part on its back. Please confirm the number seal pasted to the surface of Carriage and the projection shape of the figure below when you exchange it.

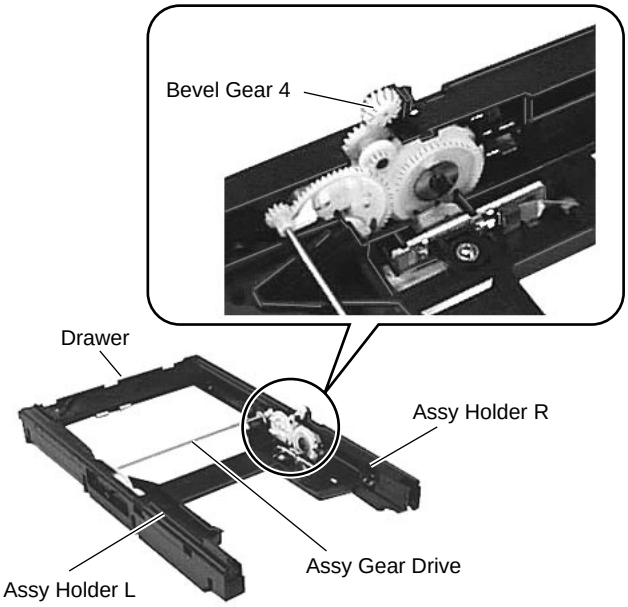


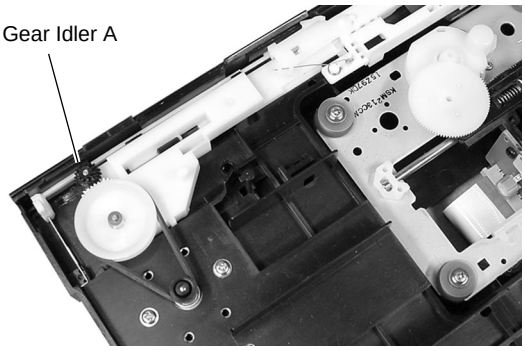
Method of distinguishing the back of Carriage.



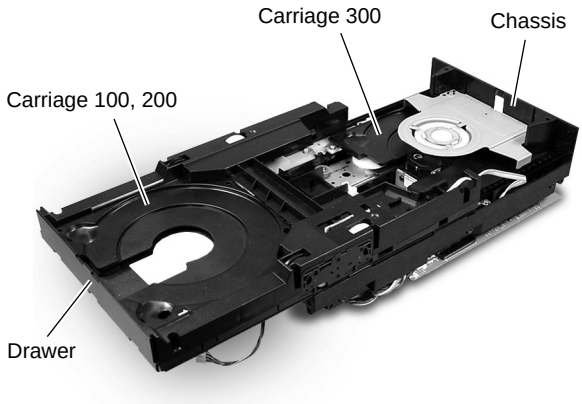
Method of distinguishing surface of Carriage.

2. Please do not disassemble Assy Holder L, R and the inside of and Drawer, and do not disassemble Assy Gear Drive which connects Assy Holder L with R.
   (The position match of each gear is necessary)
3. Please do not lose the gear (Bevel Gear 4 and Gear Idler A) not fixed while put in the axis.

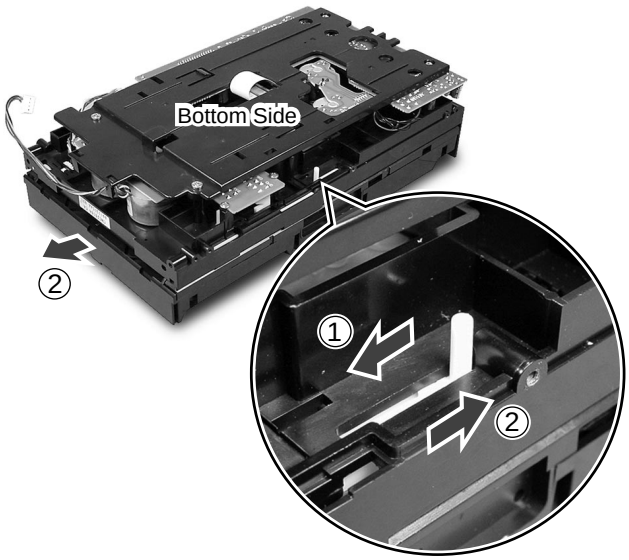


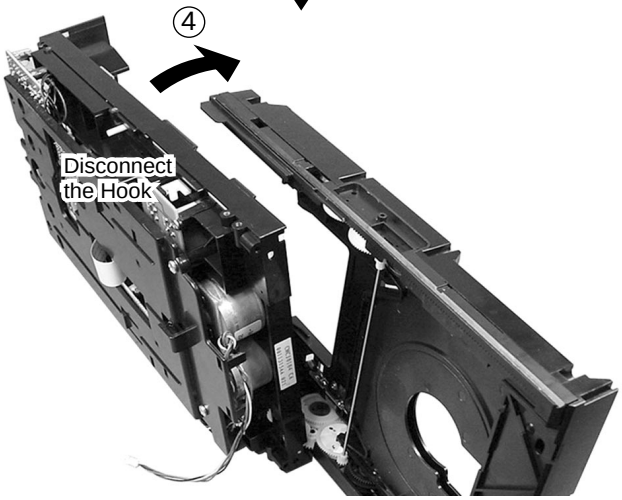


4. Carriage 300 is put in the Chassis side, and please put in the Drawer side without fail in order of Carriage 100 and 200.

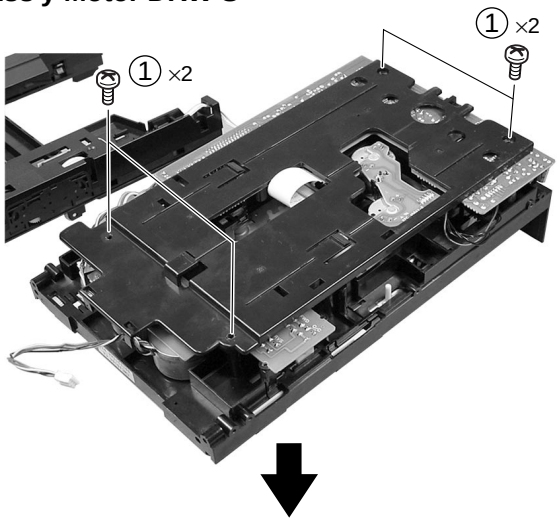


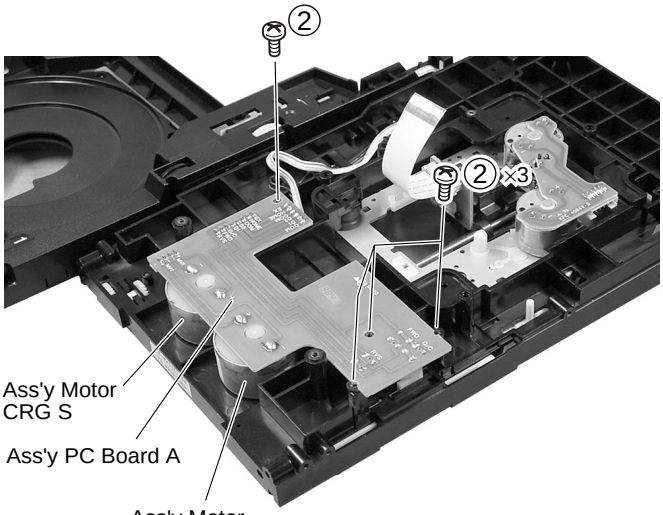
■ Drawer

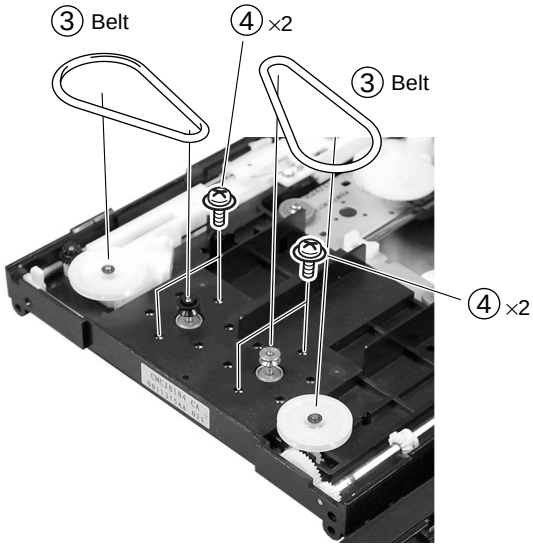




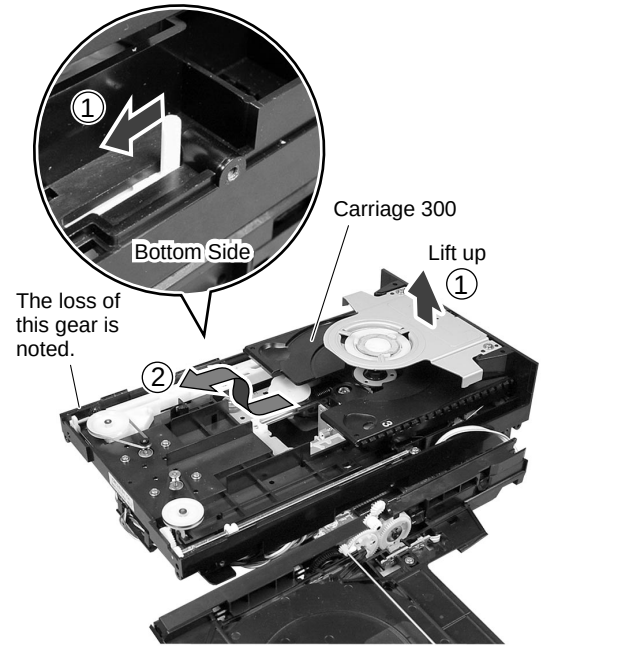
■ Disassembly of Ass'y Motor CRG S and Ass'y Motor DRW S

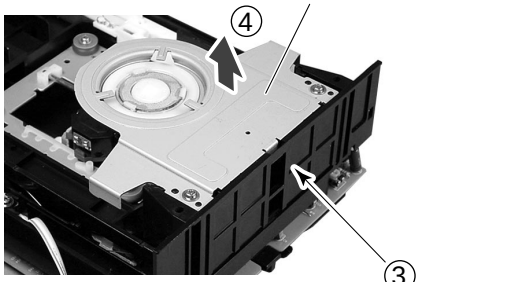


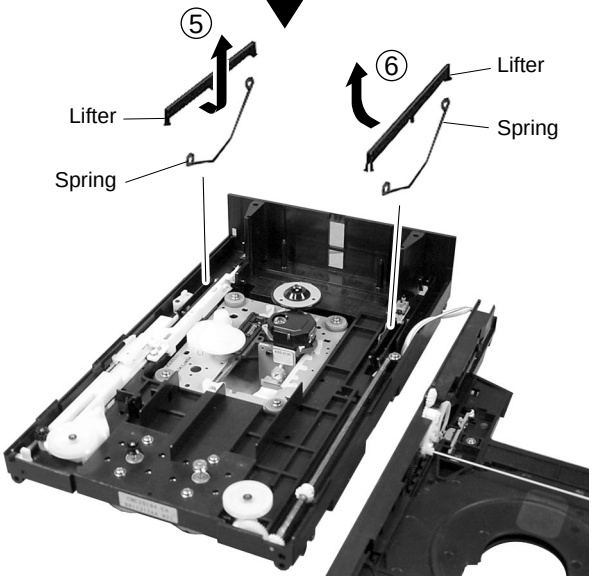


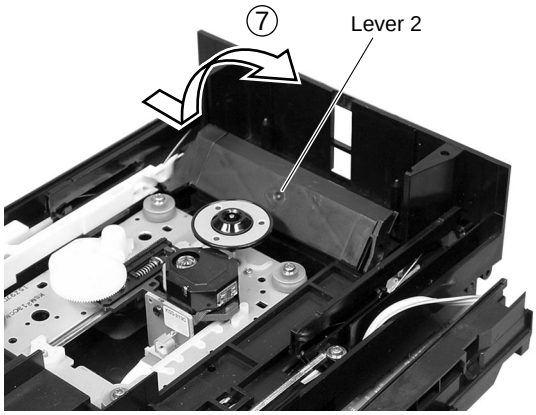


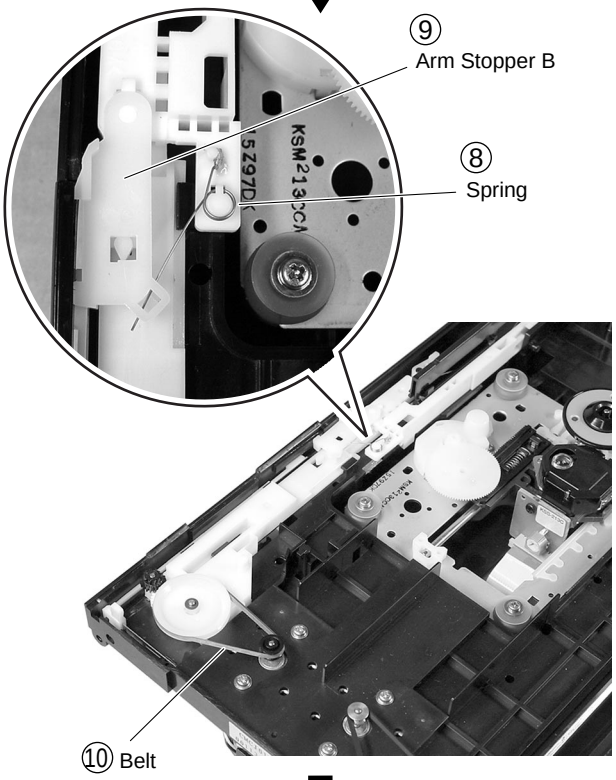
■ Chassis

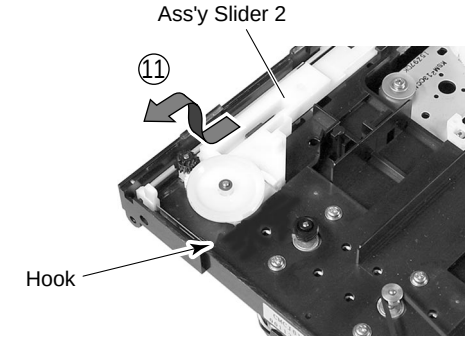

①
Bottom Side
Carriage 300
Lift up
①
The loss of this gear is noted.
②

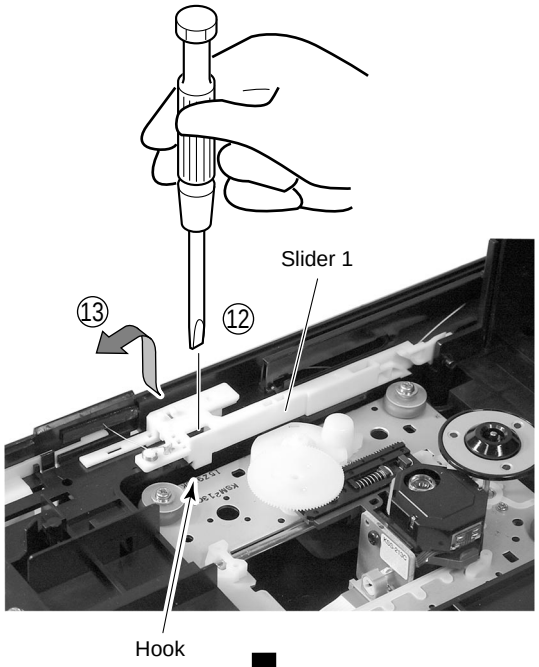

Ass'y Clamper S0
④
③
Disconnect the Hook

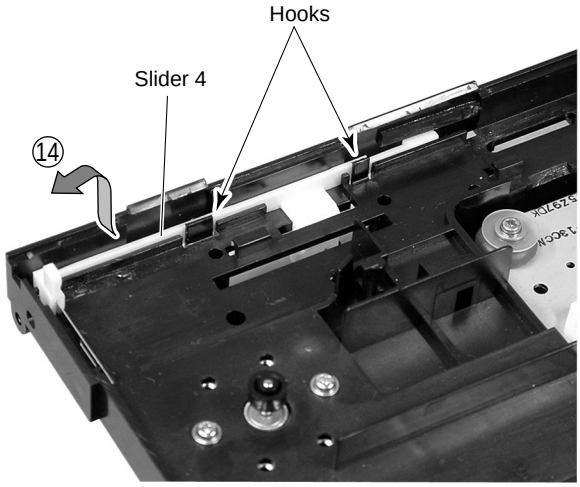

⑤
Lifter
Spring
⑥
Lifter
Spring


⑦
Lever 2

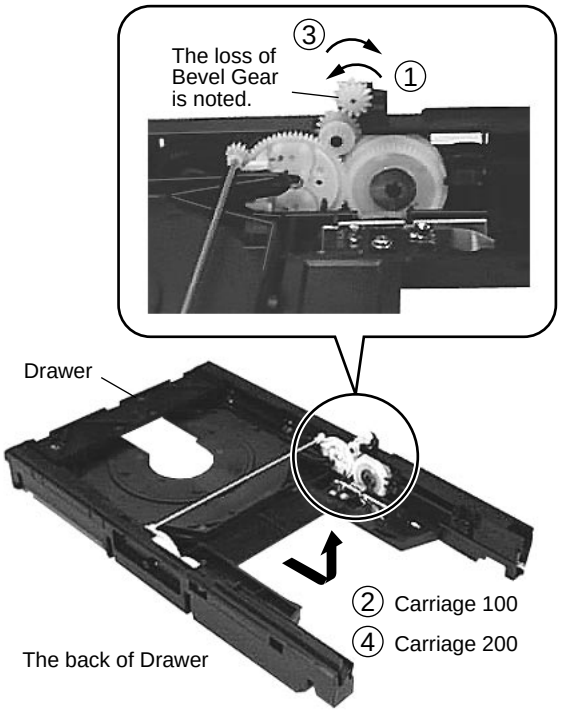

⑨
Arm Stopper B
⑧
Spring
⑩ Belt


Ass'y Slider 2
⑪
Hook



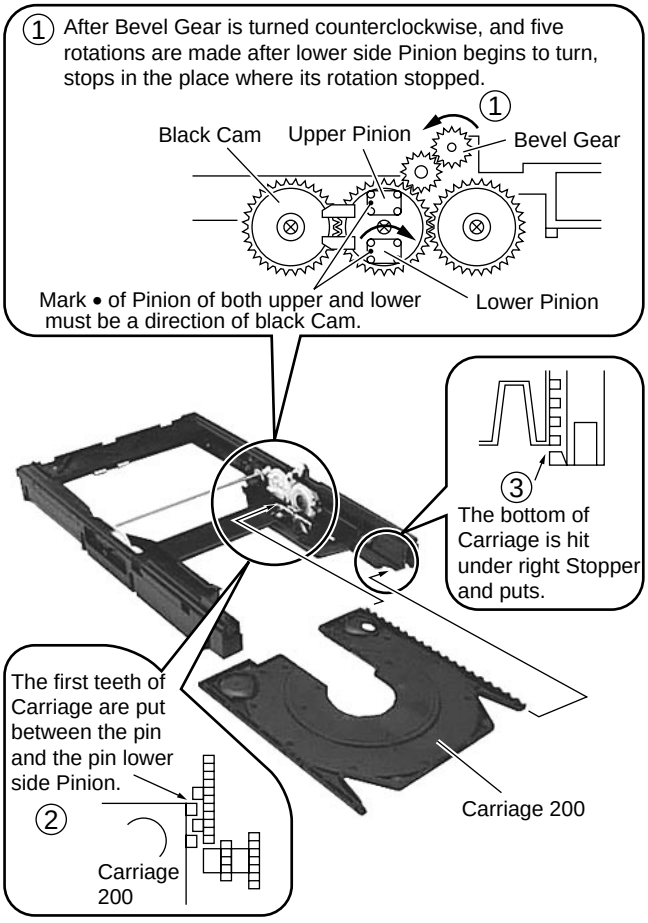


■ Disassembly of Carriage 100, 200

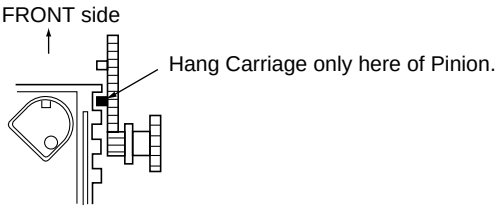


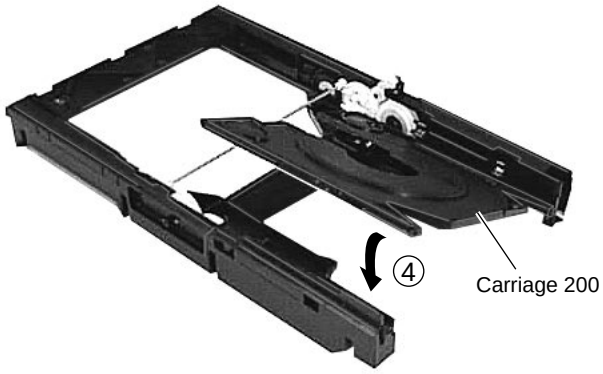
■ Assembly of Carriage 100, 200

(Carriage 100 is No.1 carriage. Carriage 200 is No.2 carriage.)


① After Bevel Gear is turned counterclockwise, and five rotations are made after lower side Pinion begins to turn, stops in the place where its rotation stopped.
①
Black Cam
Upper Pinion
Bevel Gear
Mark • of Pinion of both upper and lower must be a direction of black Cam.
Lower Pinion
③
The bottom of Carriage is hit under right Stopper and puts.
The first teeth of Carriage are put between the pin and the pin lower side Pinion.
②
Carriage 200
Carriage 200

● Notes of procedure ③.

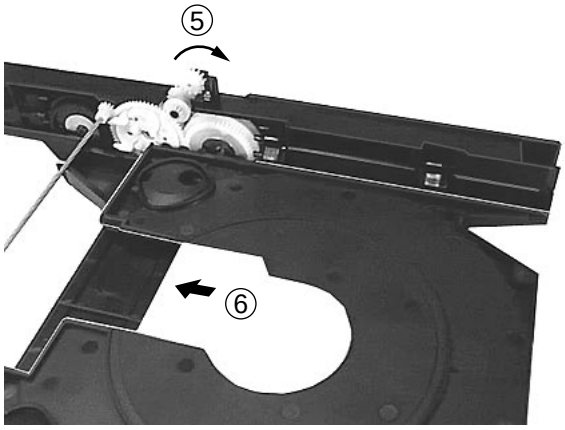




④-1 The other side of the side applied by ③ of Carriage is lightly pushed.

④-2 Puts Carriage 100 on Carriage 200 which applies by ④-1. Be careful about notes by ③ at this time.

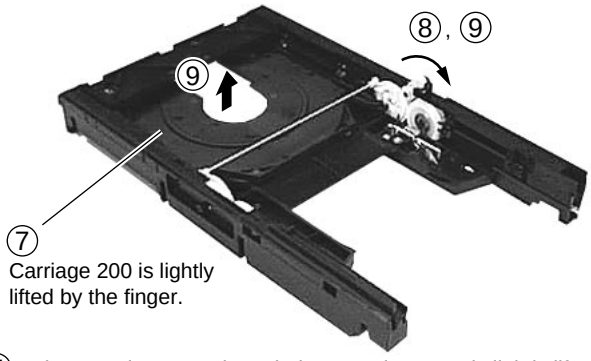
⑤ Bevel Gear is turned clockwise. (direction of a rear side from a front side)



⑥-1 Carriage 200 moves to a front side.

⑥-2 Bevel Gear is turned as it is clockwise. (direction of a rear side from a front side)

⑥-3 Carriage 100 drops below.

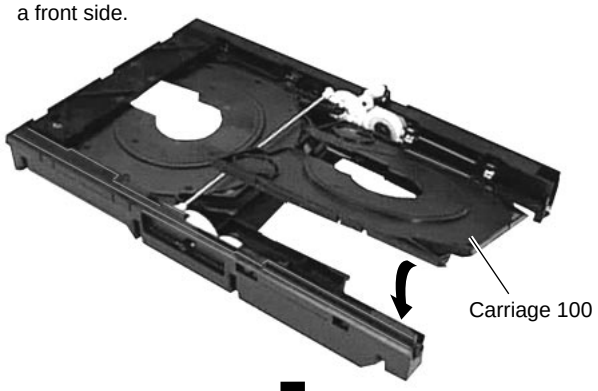


⑦ When Carriage 100 drops below, Carriage 200 is lightly lifted by the finger.
Note : Lift it horizontally when you lift Carriage. Carriage inclines when it is not the horizontal, and mechanism locks.

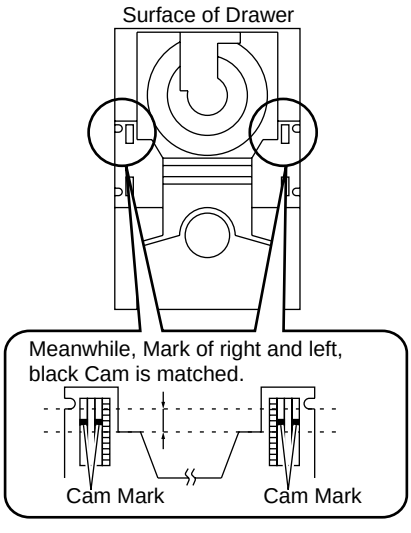
⑧ Bevel Gear is turned clockwise (direction of a rear side from a front side) like the state of ⑦.

⑨ Carriage 200 lifts up. And, when the movement is started Carriage 100 to the direction of a front side, separates the hand which lifted Carriage 200.

⑩ Keeps turning Bevel Gear clockwise (direction of a rear side from a front side) until Carriage 100 bumps to the wall on a front side.



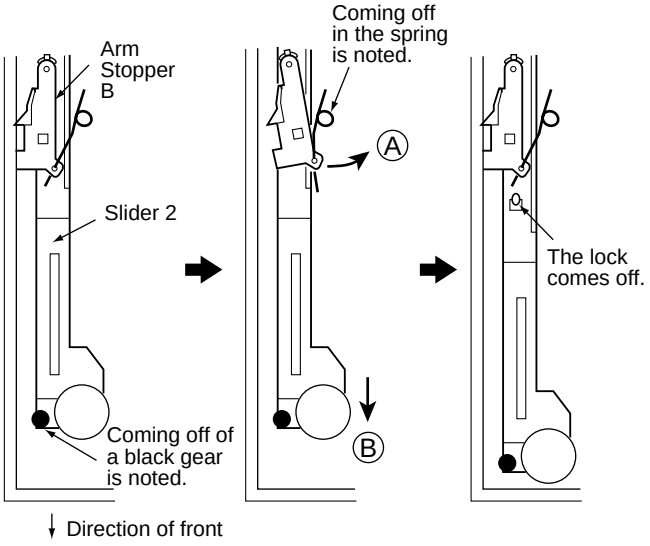
⑪ The position of a right and left, black cam is matched while confirming it from the table side of Drawer.



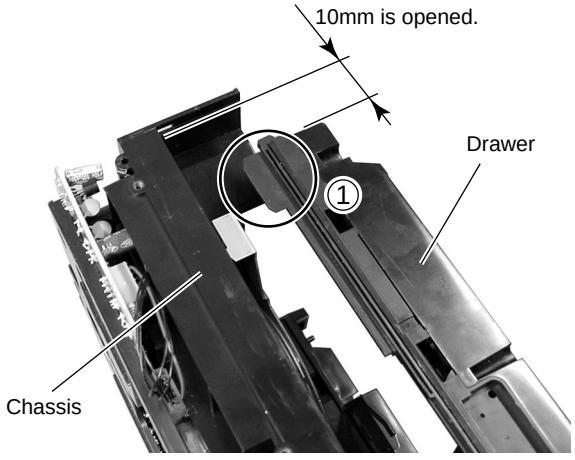
■ Assembly of Drawer and Chassis

The following work is done before Drawer is put on Chassis.
(1) It is confirmed that Carriage 300 is clamped, and Clamper has fallen.
(2) It is confirmed to Drawer to be built in neatly in order of Carriage 200 and 100.
(3) Arm Stopper B is moved horizontally (inside) as shown in the figure below. (A)
(4) Pulls Slider 2 until the lock comes off to the direction of ta front side. (B)

Note : Do not lift Arm Stopper B for above when you move Arm Stopper B.
There is a possibility to bend the spring when Arm Stopper B is lifted, and the spring bends. And, when Arm Stopper B becomes floatage feeling, Drawer is caught.



① This ◯ part of Drawer is put on Chassis like the arrow.

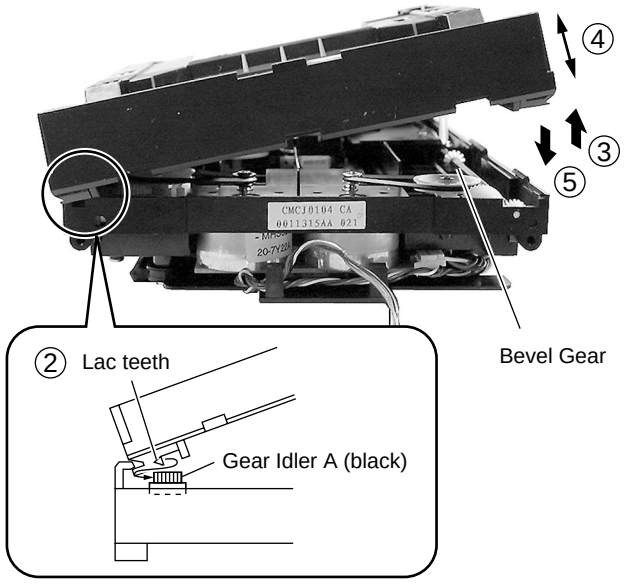


② The lac teeth and Gear Idler A are matched, and it is pressed under the diagonal lightly.

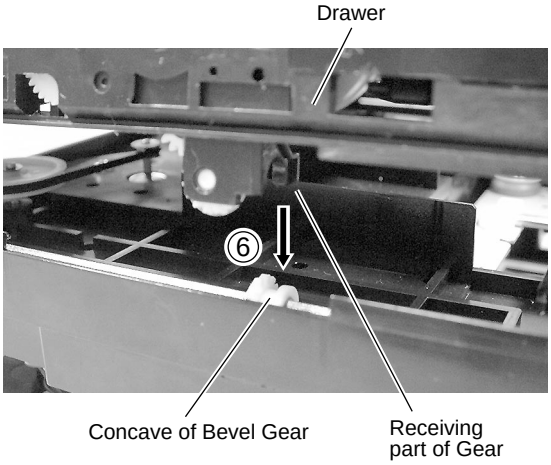
③ Right this side of Drawer is lifted.

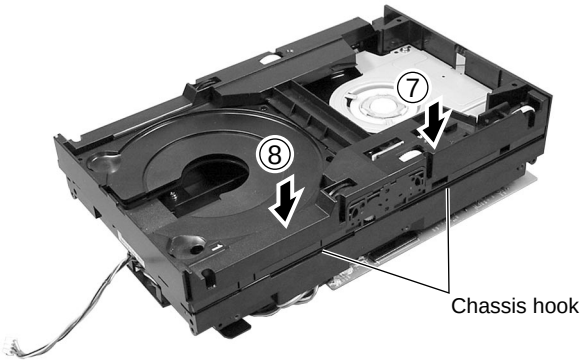
④ Drawer is moved back and forth, and stops Drawer with the point which it enters left.

⑤ Its right side is slowly lowered up to the angle by which Bevel Gear can do in the slide while doing Drawer back and forth by about 5mm.



⑥ When peeps from the inside of Drawer when the receiving part of Gear is fixed into the concave part of Bevel Gear, the place where it is fixed is comprehensible.





7.2 PARTS

7.2.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ LC876564 (DISPLAY CONTROL ASSY : IC401)

• System Control IC

● Pin Function

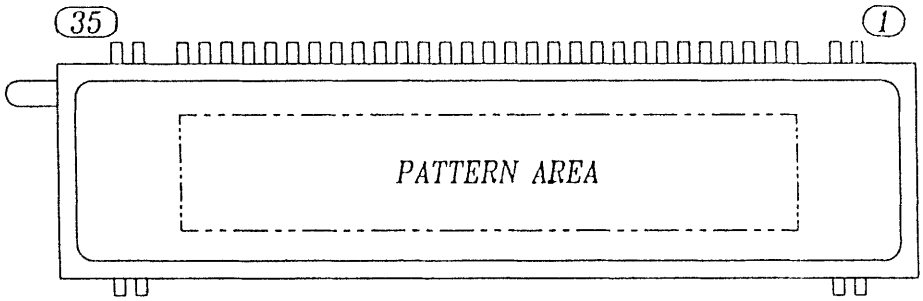
NO.	Pin Name	I/O	Function
1	FCNJOG0	I	Function Jogger Input
2	FCNJOG1	I	Function Jogger Input
3	DTS-TDATA	I/O	Tuner communication DATA pin
4	DTS-PLLPERIOD	O	Tuner communication PERIOD pin
5	DTS-PLLCLOCK	O	Tuner communication CLOCK pin
6	VOLJOG0	I	Volume Jogger Input
7	VOLJOG1	I	Volume Jogger Input
8	VOL-CLOCK	O	Volume IC communication CLOCK pin
9	VOL-DATA	O	Volume IC communication DATA pin
10	(NC)	–	Not used
11	RESET	I	MCU low reset pin
12	XT1 (LOW CLK)	–	Sub-Clock 32.768KHz (Input)
13	XT2 (LOW CLK)	–	Sub-Clock 32.768KHz (Output)
14	VSS1	–	Ground
15	CF1 (MAIN CLK)	–	Main clock 8MHz (Input)
16	CF2 (MAIN CLK)	–	Main clock 8MHz (Output)
17	VDD1	–	5V power supply
18	KEY0	I	Keyboard Input (Analog)
19	KEY1	I	Keyboard Input (Analog)
20	KEY2	I	Keyboard Input (Analog)
21	DTS-COUNTRY	I	Tuner Country setting option pin
22	DTS-STRENGTH	I	Tuner Signal Strength
23	CHANNEL0	O	Control Audio Channel Output
24	CHANNEL1	O	Control Audio Channel Output
25	VOL-LATCH	O	Volume IC communication LATCH pin
26	SYS-STOP	I	No Power detection pin
27	(NC)	–	Not used
28	SYS-POWER	O	Control the audio power supply
29	REMOTE	I	Infra-red remote receiver input pin
30	VFD (GD1)	O	Output for VFD display controller digit
31	VFD (GD2)	O	Output for VFD display controller digit
32	VFD (GD3)	O	Output for VFD display controller digit
33	VFD (GD4)	O	Output for VFD display controller digit
34	VFD (GD5)	O	Output for VFD display controller digit
35	VFD (GD6)	O	Output for VFD display controller digit
36	VFD (GD7)	O	Output for VFD display controller digit
37	VFD (G08)	O	Output for VFD display controller digit
38	VFD (G09)	O	Output for VFD display controller digit
39	VFD (S18)	O	Output for VFD display controller segment
40	VFD (S17)	O	Output for VFD display controller segment
41	VFD (S16)	O	Output for VFD display controller segment
42	VFD (S15)	O	Output for VFD display controller segment
43	VFD (S14)	O	Output for VFD display controller segment
44	VFD (S13)	O	Output for VFD display controller segment
45	VFD (S12)	O	Output for VFD display controller segment
46	VDD3	–	Power Supply (+5V)
47	VFD (S11)	O	Output for VFD display controller segment

NO.	Pin Name	I/O	Function
48	VFD (S10)	O	Output for VFD display controller segment
49	VFD (S09)	O	Output for VFD display controller segment
50	VFD (S08)	O	Output for VFD display controller segment
51	VP	–	VFD Power Supply (-24V)
52	VFD (S07)	O	Output for VFD display controller segment
53	VFD (S06)	O	Output for VFD display controller segment
54	VFD (S05)	O	Output for VFD display controller segment
55	VFD (S04)	O	Output for VFD display controller segment
56	VFD (S03)	O	Output for VFD display controller segment
57	VFD (S02)	O	Output for VFD display controller segment
58	VFD (S01)	O	Output for VFD display controller segment
59	(NC)	–	Not used
60	(NC)	–	Not used
61	(NC)	–	Not used
62	(NC)	–	Not used
63	(NC)	–	Not used
64	DTS-PLLSTEREO	I	Tuner in stereo pin
65	RVS-SW	I	Changer - Slider Reverse position switch
66	FWD-SW	I	Changer - Slider Forward position switch
67	OP/CL-SW	I	Changer - Drawer open/close detect switch
68	CN1-SW	I	Changer - Carriage number 1 switch
69	CN2-SW	I	Changer - Carriage number 2 switch
70	HOME-SW	I	Changer - Carriage Home Position switch
71	EXTRA-SW	I	Changer - Carriage Extra Position switch
72	VDD4	–	Power Supply (+5V)
73	DMR	O	Drawer Motor Reverse control
74	DMF	O	Drawer Motor Forward control
75	CMR	O	Carriage Motor Reverse control
76	CMF	O	Carriage Motor Forward control
77	(NC)	–	Not used
78	(NC)	–	Not used
79	(NC)	–	Not used
80	CLK-POWER	O	Main Power Control
81	D1-LED	O	Top panel CD1 LED control
82	D2-LED	O	Top panel CD2 LED control
83	D3-LED	O	Top panel CD3 LED control
84	(NC)	–	Not used
85	CD-BUS0	I/O	CD Servo IC DATA BUS 0
86	CD-BUS1	I/O	CD Servo IC DATA BUS 1
87	CD-BUS2	I/O	CD Servo IC DATA BUS 2
88	CD-BUS3	I/O	CD Servo IC DATA BUS 3
89	VSS2	–	Ground
90	VDD2	–	Power Supply (+5V)
91	CD-CCE	O	CD Servo IC Chip-enable pin
92	CD-BUCK	O	CD Servo IC Bus Clock pin
93	CD-SW_PUIN	I	CD Servo Pickup Inner Switch
94	SYS-MUTE	O	System Muting
95	CD-POWER	O	CD Power Control pin
96	RDS-DATA	I	RDS IC communication DATA pin
97	RDS-CLOCK	I	RDS IC communication CLOCK pin
98	FLASH-OUTPUT	–	For Download program to FLASH type MCU
99	FLASH-INPUT	–	For Download program to FLASH type MCU
100	FLASH-CLK	–	For Download program to FLASH type MCU

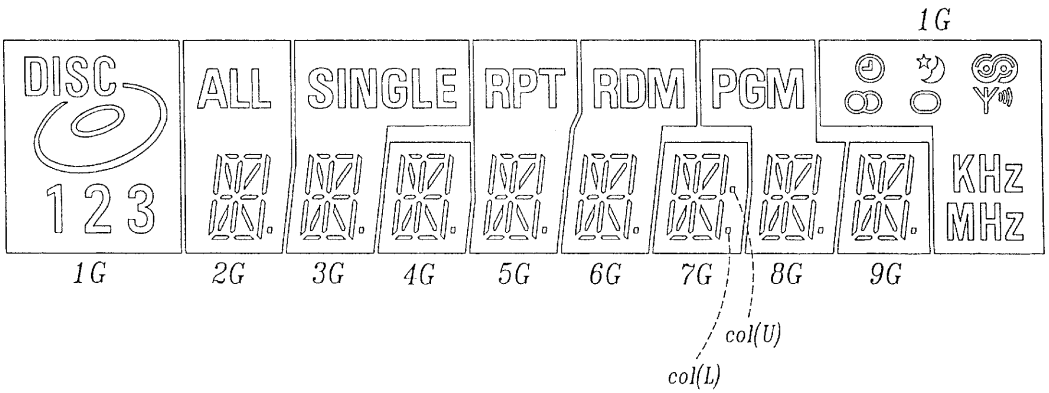
7.2.2 DISPLAY

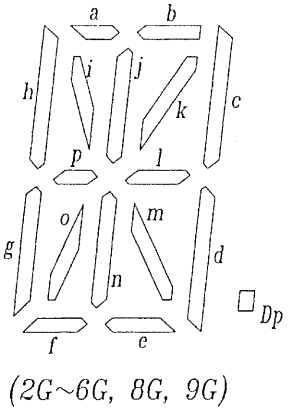
■ 115-000920-000A (HNA-09SS20) (DISPLAY CONTROL ASSY : LCD401)

- **FL DISPLAY**



● **Anode Connection**





	1G	2G	3G	4G	5G	6G	7G	8G	9G
P1	DISC	a	a	a	a	a	a	a	a
P2	◎	b	b	b	b	b	b	b	b
P3	1	c	c	c	c	c	c	c	c
P4	2	d	d	d	d	d	d	d	d
P5	3	e	e	e	e	e	e	e	e
P6	◴	f	f	f	f	f	f	f	f
P7	☆	g	g	g	g	g	g	g	g
P8	((o))	h	h	h	h	h	h	h	h
P9	∞	i	i	i	i	i	i	i	i
P10	○	j	j	j	j	j	j	j	j
P11	Y	k	k	k	k	k	k	k	k
P12	KHz	l	l	l	l	l	l	l	l
P13	MHz	m	m	m	m	m	m	m	m
P14	—	n	n	n	n	n	n	n	n
P15	—	o	o	o	o	o	o	o	o
P16	—	p	p	p	p	p	p	p	p
P17	—	Dp	Dp	Dp	Dp	Dp	col(U)	Dp	Dp
P18	—	ALL	SINGLE	—	RPT	RDM	col(L)	PGM	—

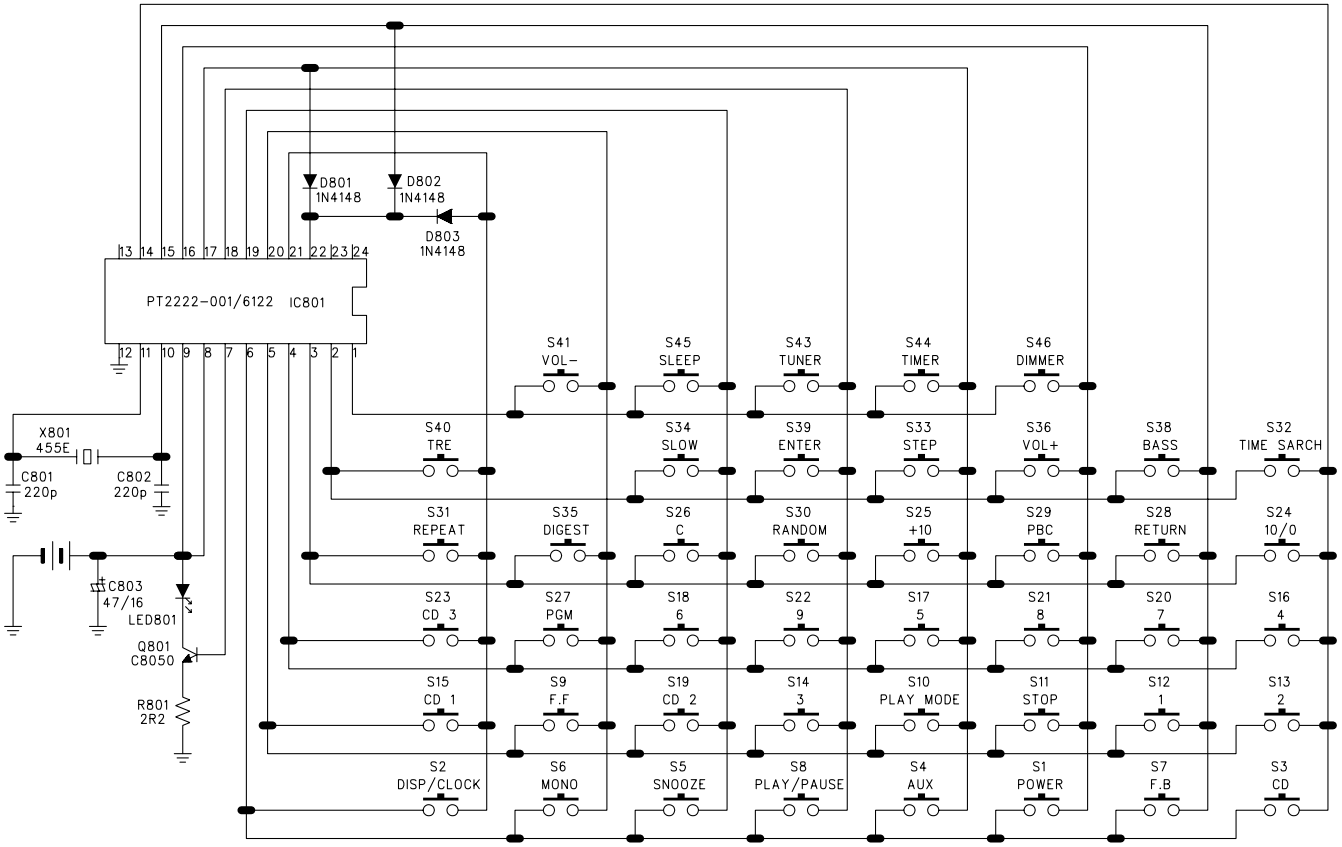
● **Pin Connection**

PIN NO.	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	F2	F2	NP	1G	2G	3G	4G	5G	6G	7G	8G	9G	NC	NC	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NP	F1	F1

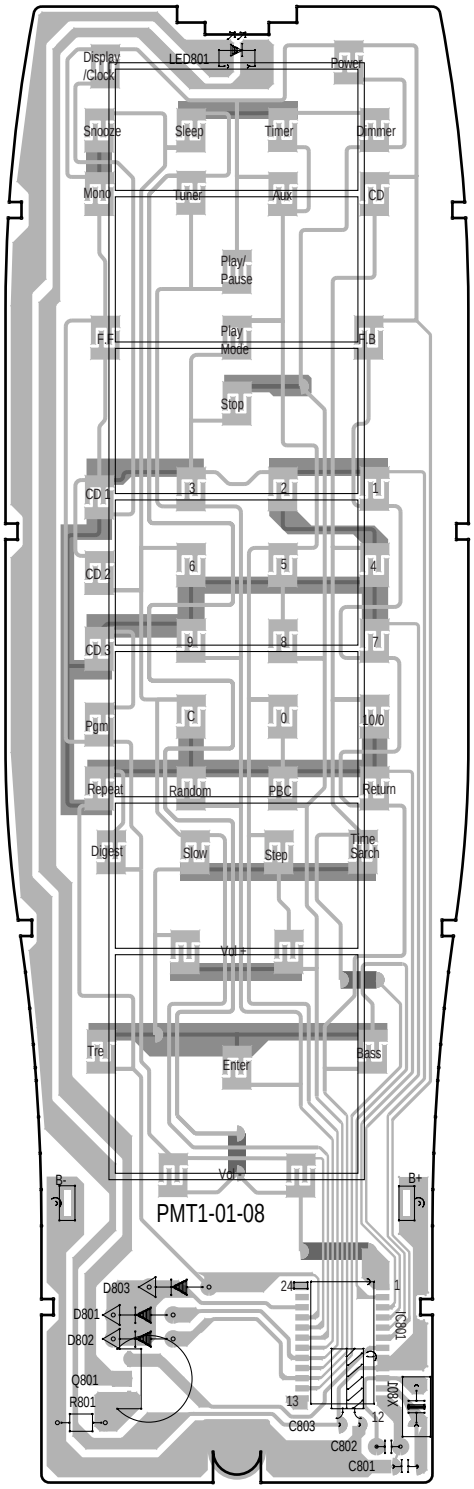
NOTE
1) Fn : Filament Pin
2) NP : No Pin
3) NC : No Connection Pin
4) nG : Grid Pin
5) Pn : Anode Pin

7.3 REMOTE CONTROL UNIT

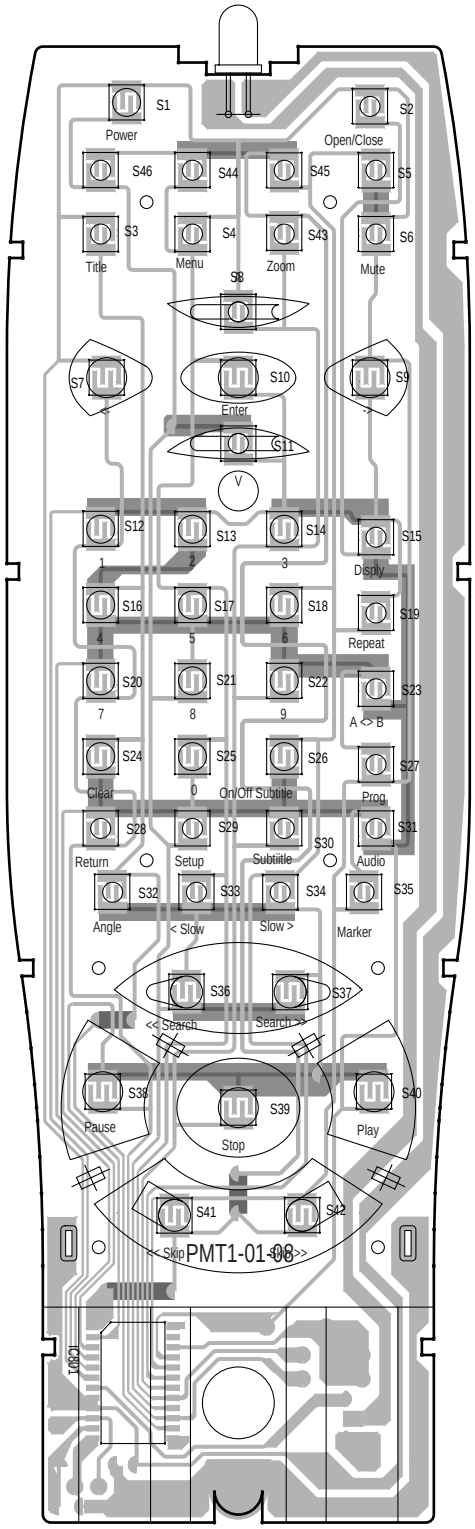
7.3.1 SCHEMATIC DIAGRAM



7.3.2 PCB DIAGRAM



SIDE B

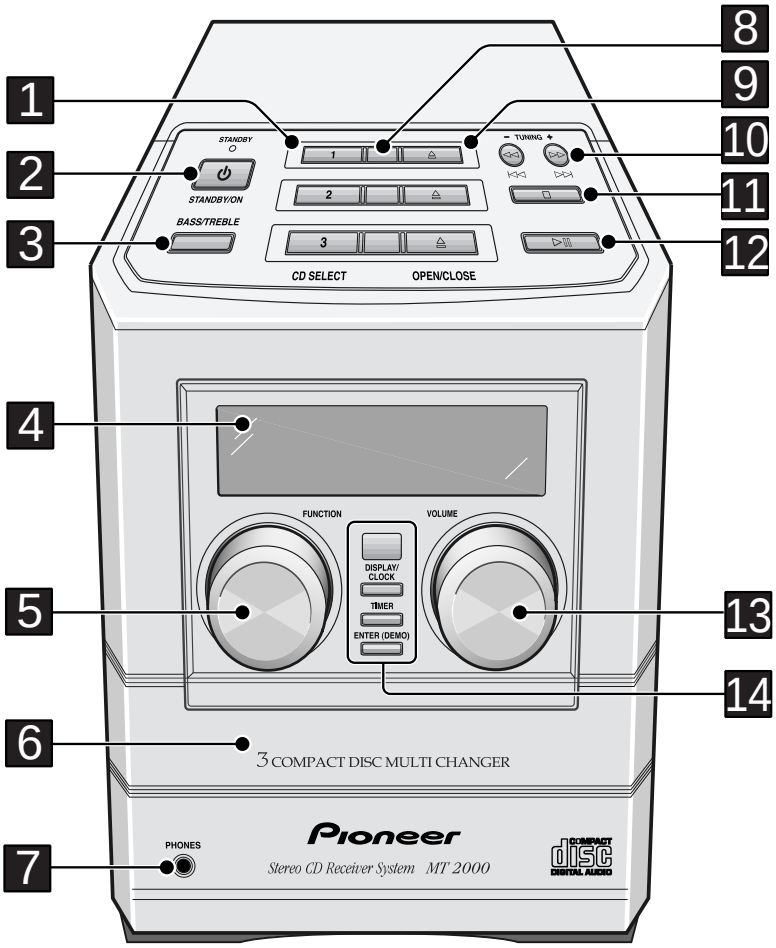


SIDE A

8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

Front Panel



1 **CD SELECT 1 / 2 / 3** – Use to select CDs, and start playback if there's a disc loaded. Also switches the system on if it was in standby.

2 **STANDBY / ON** – Press to switch on or into standby.

3 **BASS / TREBLE** – Use to adjust the tone of the sound.

4 **Fluorescent display**

5 **FUNCTION** – Turn to select the source to listen to: CD, radio or an external component.

6 **Disc tray**

7 **PHONES socket** – Plug in a pair of headphones for private listening.

8 **Disc indicators** – Indicate whether a disc is loaded in that disc tray (blinks while loading; lights when loaded)

9 **OPEN / CLOSE ⏏** – Use to open or close individual disc trays. Also switches the system on if it was in standby.

10 **◄◄ / I◄◄ / TUNING –** – When using the CD player, use to scan backwards, or skip back tracks. When using the radio, use for tuning and to select preset stations.

►► / ►►I / TUNING + – When using the CD player, use to scan forwards, or skip forward tracks. When using the radio, use for tuning and to select preset stations.

11 **■** – Press to stop a CD playing. Also cancels auto scan tuning.

12 **►II** – Press to start or restart a CD playing, or pause a disc that's already playing. Also switches the system on if it was in standby.

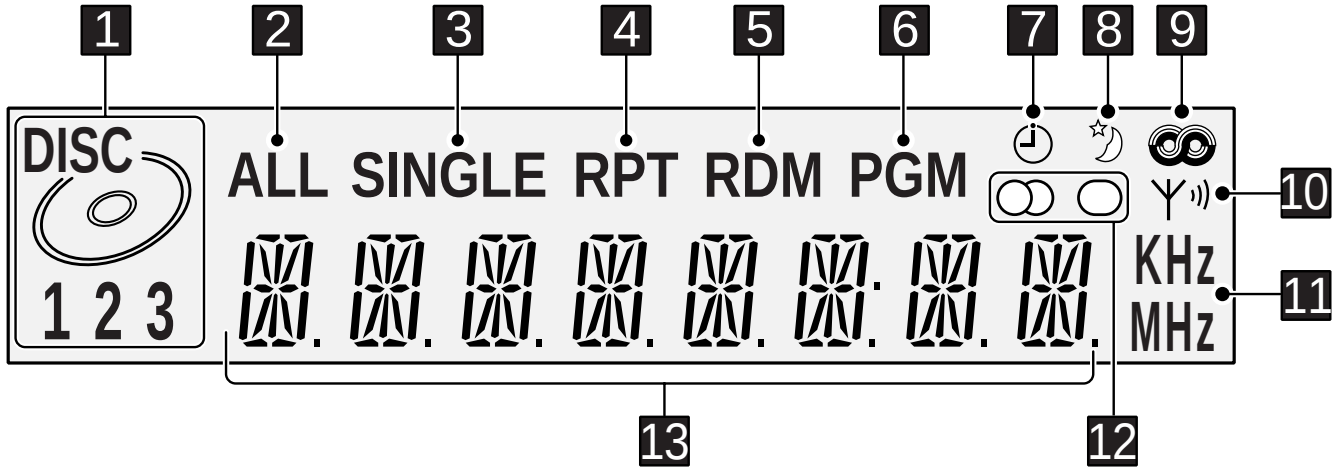
13 **VOLUME** – Turn to adjust the volume.

14 **DISPLAY / CLOCK** – Press to change the CD or station information shown in the display. Also use to set/display the clock.

TIMER – Use to set the wake up.

ENTER (DEMO) – Use to save a radio station preset; set the clock or timer. Also switches the demo on/off.

Display



1 **Current disc indicator** – Shows the current disc (blinks when paused).

2 **ALL** – Lights in All disc play mode (all CDs loaded will play).

3 **SINGLE** – Lights in Single disc play mode (only the currently selected disc will play).

4 **RPT** – Lights in repeat play mode.

5 **RDM** – Lights in random play mode.

6 **PGM** – Lights when the track order has been programmed.

7 – Lights when the wake up timer has been set.

8 – Lights when the sleep timer has been set.

9 – Lights when an RDS broadcast is received. (MYXCN and NVXCN types only)

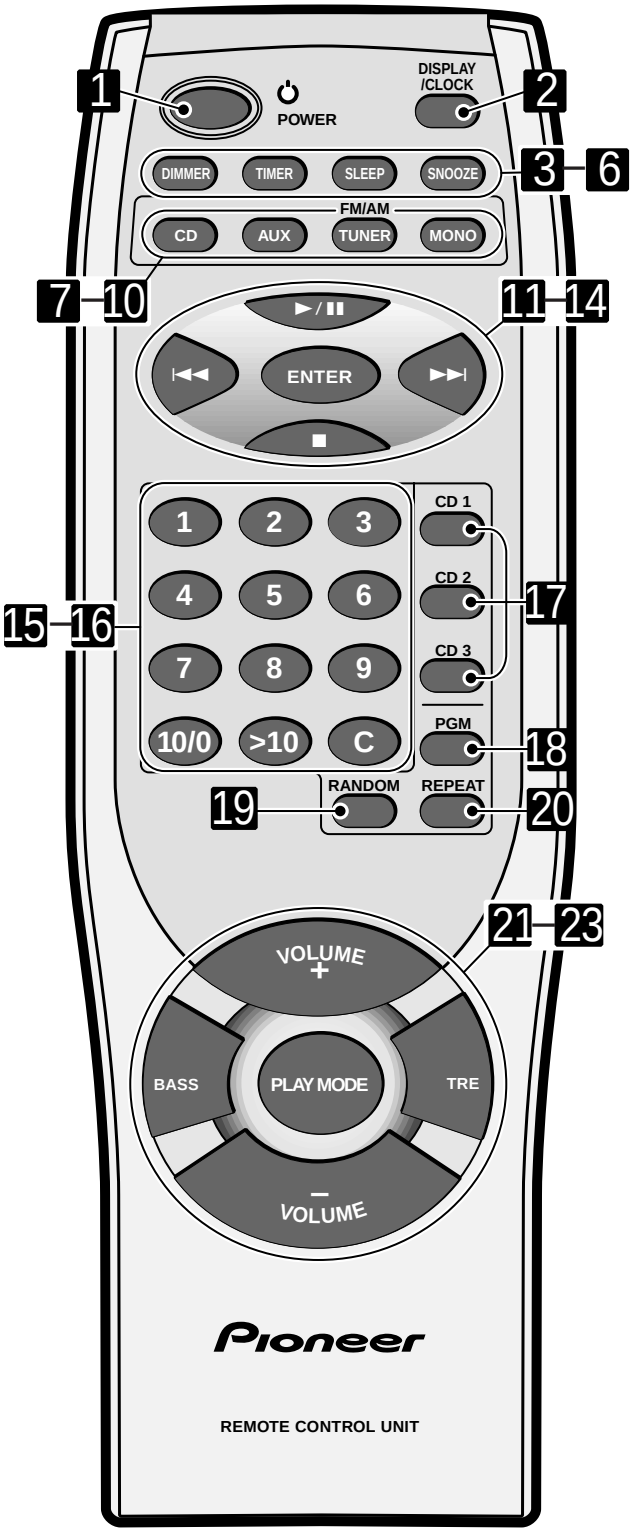
10 – Indicates the strength of the broadcast signal.

11 **kHz / MHz** – Indicates an FM frequency (MHz) or an AM frequency (kHz).

12 – Indicates whether you're listening to the radio in stereo or mono.

13 **Character display**

Remote Control Unit



1 **POWER (STANDBY/ON)** – Press to switch the unit on or into standby.

2 **DISPLAY/CLOCK** – Press to change the information shown in the display.

3 **DIMMER** – Use to change the brightness of the display.

4 **TIMER** – Press to set the wake up timer.

5 **SLEEP** – Press to set the sleep timer.

6 **SNOOZE** – Press for snooze function when using the wake up timer.

7 **CD** – Press for CD mode. Also switches the system on if it was in standby.

8 **AUX** – Press for auxiliary mode. Also switches the system on if it was in standby.

9 **FM/AM TUNER** – Press for tuner mode, and to switch between AM and FM. Also switches the system on if it was in standby.

10 **MONO** – Press to hear a stereo FM broadcast in mono (improves the sound quality).

11 ►/II – Press to start or restart playback, or pause a disc that's already playing.

12 **I◄◄ and ►►I** – When listening to CDs, press to skip back/forward tracks; press and hold for fast reverse/forward play. When listening to the radio, use for turning and use to tune into stations and select preset stations.

13 **ENTER** – Use to save a radio station preset; set the clock or timer.

14 ■ – Press to stop playback. Also cancels auto scan tuning.

15 **Number buttons** – When playing CDs, use to select track numbers. When listening to the radio, use to select preset stations.

16 **C** – Press to clear a CD playlist.

17 **CD buttons** – Press to select discs. Also switches the system on if it was in standby.

18 **PGM** – Press to start programming a CD playlist.

19 **RANDOM** – Press to start random CD playback.

20 **REPEAT** – Use to select the repeat mode (1-track, current disc or all-disc).

21 **VOLUME +/–** – Use to adjust the volume.

22 **BASS / TRE** – Use to adjust the tone (bass and treble) of the sound.

23 **PLAY MODE** – Use to select single disc play, or all-disc play.

8.2 SPECIFICATIONS

Stereo CD Receiver:

Amplifier Section

X-MT2000 (U.S. and Canadian models)
Continuous Average Power Output is 12.5 Watts* per channel, min., at 8 ohms from 60 Hertz to 15,000 Hertz, with no more than 1.0% total harmonic distortion.**

* *Measured persuant to the Federal Trade Commission's Trade Regulation rules on Power Output Claims for Amplifiers.*

** *Measured by audio spectrum analyzer.*

Continuous Power (RMS) ..... 20 W + 20 W
(1 kHz, THD 10%, 8 Ω)
Continuous Power (DIN) ..... 15 W + 15 W
(1 kHz, THD 1%, 8 Ω)

FM Tuner Section

Frequency Range ..... 87.5 – 108 MHz
Antenna ..... 75 Ω, unbalanced

AM Tuner Section

Frequency Range ..... 530 kHz – 1,700 kHz (10 kHz step)
Antenna ..... Loop antenna

Compact Disc Player Section

Type ..... Compact disc digital audio system
Usable discs ..... Compact discs
Channels ..... 2 (stereo)
Frequency Response ..... 20Hz–20 kHz

Power Section & Miscellaneous

Power Requirements ..... AC 120 V, 50/60 Hz
Power Consumption (ON mode) ..... 48 W
Power Consumption (Standby mode) ..... 1 W
Dimensions ..... 160 (W) × 170 (H) × 323.5(D) mm
(6 $^{3}/_{10}$ (W) × 6 $^{7}/_{10}$ (H) × 12 $^{12}/_{16}$ (D) in.)
Weight ..... 4.8 kg
(10 lb. 9 oz.)

Accessories

Operating instructions 1
Warranty card 1
FM wire antenna 1
AM loop antenna 1
'AAA' size R03 batteries 2
Remote control unit 1
Speaker cords 2

Speaker System:

Enclosure ..... Bass-reflex bookshelf type
Loudspeaker wide band (full range) ..... 87 mm
(3 $^{2}/_{5}$ in.)
Nominal impedance ..... 8 Ω
Frequency response ..... 70 Hz–20,000 Hz
Maximum input ..... 20 W
External dimensions ..... 130 (W) × 170 (H) × 194 (D) mm
(5 $^{1}/_{10}$ (W) × 6 $^{7}/_{10}$ (H) × 7 $^{3}/_{5}$ (D) in.)
Weight ..... 1.35 kg
(3 lb. 1 oz.)

Stereo CD Receiver:

Amplifier Section

Continuous Power (RMS) ..... 20 W + 20 W
(1 kHz, THD 10%, 8 Ω)
Continuous Power (DIN) ..... 15 W + 15 W
(1 kHz, THD 1%, 8 Ω)
Music Power (DIN) ..... 36 W + 36 W
(1 kHz, THD 1%, 8Ω)

• *Above specifications are for when the power supply is 230 V.*

FM Tuner Section

Frequency Range ..... 87.5 – 108 MHz
Antenna ..... 75 Ω, unbalanced

AM Tuner Section

Frequency Range ..... 531 kHz – 1,602 kHz (9 kHz step)
530 kHz – 1,700 kHz (10 kHz step)
Antenna ..... Loop antenna

Compact Disc Player Section

Type ..... Compact disc digital audio system
Usable discs ..... Compact discs
Channels ..... 2 (stereo)
Frequency Response ..... 20Hz–20 kHz

Power Section & Miscellaneous

Power Requirements ..... AC 230V, 50/60Hz (UK model)
AC 220- 230 V, 50/60 Hz
Power Consumption (ON mode) ..... 52 W
Power Consumption (Standby mode) ..... 1 W
Dimensions ..... 160 (W) × 170 (H) × 323.5(D) mm
Weight ..... 4.8 kg

Accessories

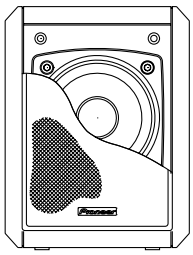
Operating instructions 1
Warranty card 1
FM wire antenna 1
AM loop antenna 1
'AAA' size R03 batteries 2
Remote control unit 1
Speaker cords 2

Speaker System:

Enclosure ..... Bass-reflex bookshelf type
Loudspeaker wide band (full range) ..... 87 mm
Nominal impedance ..... 8 Ω
Frequency response ..... 70 Hz–20,000 Hz
Maximum input ..... 20 W
External dimensions ..... 130 (W) × 170 (H) × 194 (D) mm
Weight 1.4kg

Note :
Specifications and design subject to possible modification without notice, due to improvements.

Service Manual



• S-MT3W

ORDER NO.
RRV2344

SPEAKER SYSTEM

S-MT3W XMD/UC
S-MT3H XMD/EW
S-MT3 XMD/E
S-MT3-N XMD/NC

● **This product is component of system.**

Component	Model				Service manual	Remarks
STEREO CD RECEIVER SYSTEM	X-MT2000				RRV2342	
	KUCXCN	MYXCN,NVXCN	DBDXCN	DLXCN/NC		
STEREO CD RECEIVER	XR-MT3	XR-MT3	XR-MT3	XR-MT3	RRV2343	
SPEAKER SYSTEM	S-MT3W	S-MT3H	S-MT3	S-MT3-N	RRV2344	This manual.

65S

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

FOR PRECAUTION OF REASSEMBLY AND DISASSEMBLY

- The grille is attached to the cabinet by catches. Detach it by pulling it toward you.
- The speaker is attached to the baffle by 4 external screws. To detach it, unfasten those screws. When attaching it, face its terminal downward.
- The input terminal is attached to the back board by press-fitting. To detach it, pry it open by inserting a flat blade screwdriver into lower side.

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS SERVICE, INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER EUROPE NV Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936
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T–ZZK JULY 2000 Printed in Japan

PARTS LIST

NOTES : ● *Parts marked by "* NSP *" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*

• S-MT3W

Mark	No.	Description	Part No.
		Speaker	D87DC54-56F
		Grille	SMG1702
		Screw	SBA1187
		Cable	SDF1083
		Catch	SLH1068
		Non-skid Pad	SEC1485

For Packing

Mark	No.	Description	Part No.
		Top Protector	SHA2245
		Bottom Protector	SHA2246
		Protection Mat	SHC1762

• S-MT3H, S-MT3 and S-MT3-N

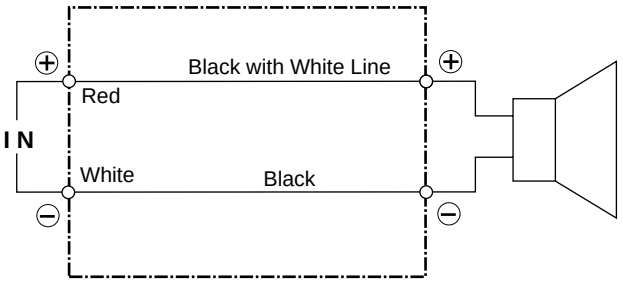
Mark	No.	Description	Part No.
		Speaker	D87DC54-56F
		Grille	SMG1700
		Screw	SBA1183
		Cable	SDF1084
		Catch	SLH1067

For Packing

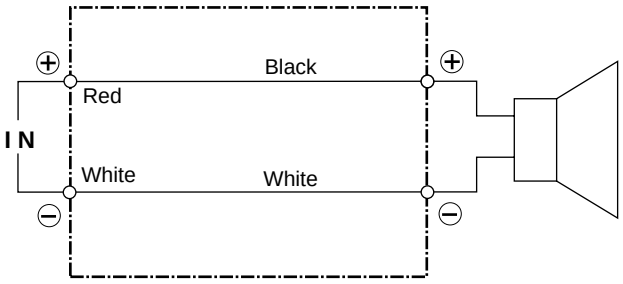
Mark	No.	Description	Part No.
		Top Protector	SHA2243
		Bottom Protector	SHA2244
		Poly Bag	SHL1257

SCHEMATIC DIAGRAM

• S-MT3W

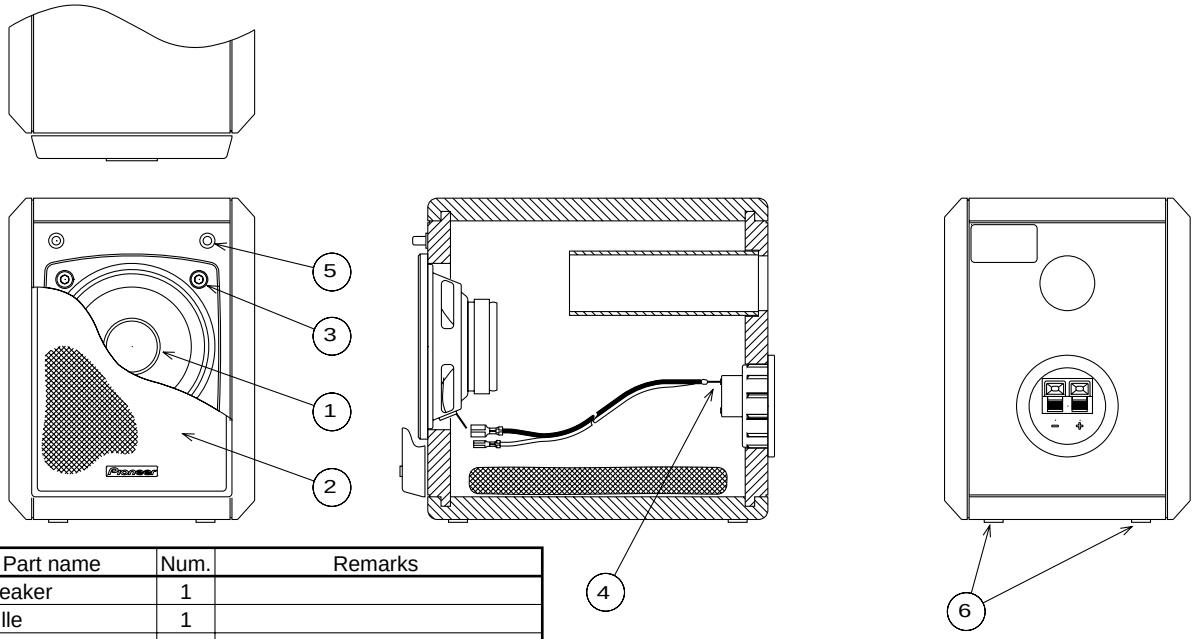


• S-MT3H, S-MT3 and S-MT3-N



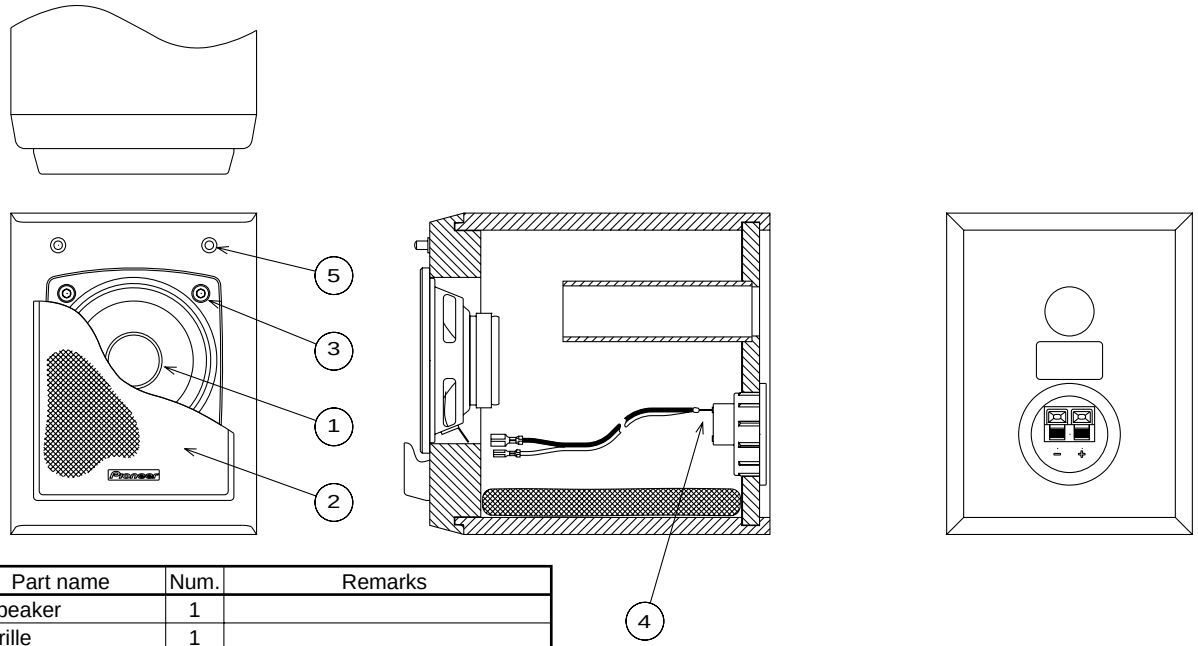
PRODUCT APPEARANCE

• S-MT3W



No.	Part name	Num.	Remarks
1	Speaker	1	
2	Grille	1	
3	Screw	4	
4	Cable	1	
5	Catch	4	
6	Non Skid Pad	4	
7			

• S-MT3H, S-MT3 and S-MT3-N



No.	Part name	Num.	Remarks
1	Speaker	1	
2	Grille	1	
3	Screw	4	
4	Cable	1	
5	Catch	4	
6			